



Tom Swift and His Diving Seacopter

(The seventh book in the Tom Swift Jr series)

Victor Appleton II

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From the inside cover:

In his unique invention the Ocean Arrow, an "underwater helicopter," Tom Swift Jr. embarks on a precarious search for a lost rocket from space.

The rocket, containing evidence of living things on another planet, was directed to Swift Enterprise's for scientific study. But its course was mysteriously changed while the rocket was hurtling toward earth-and its landing site is unknown!

Tom suspects that the rocket lies underwater, somewhere off the coast of South America. Accompanied by his friends, Bud Barclay and Chow Winkler, and two expert oceanographers, the young inventor sets out in his diving seacopter to locate the rocket.

But a group of unethical scientists have uncovered a clue to this valuable treasure from space. In their own undersea craft, they try to thwart Tom in his attempt to claim the rocket which rightfully belongs to Swift Enterprises. Unexpected dangers confront the Swift expedition every mile of the search for the scientific prize. When, the Ocean Arrow is trapped in a crushing, underwater landslide, Tom and his companions nearly lose their lives. How they overcome sub-ocean hazards, as well as their cunning enemies, makes one of the most exciting stories to elate in the TOM SWIFT JR. series.

The Tom Swift Jr. series:

- 1 Tom Swift and his Flying Lab (1954)
- 2 Tom Swift and his Jetmarine (1954)
- 3 Tom Swift and his Rocket Ship (1954)
- 4 Tom Swift and his Giant Robot (1954)
- 5 Tom Swift and his Atomic Earth Blaster (1954)
- 6 Tom Swift and his Outpost in Space (1955)
- 7 Tom Swift and his Diving Seacopter (1956)
- 8 Tom Swift in the Caves of Nuclear Fire (1956)
- 9 Tom Swift on the Phantom Satellite (1956)
- 10 Tom Swift and his Ultrasonic Cycloplane (1957)
- 11 Tom Swift and his Deep-Sea Hydrodome (1958)
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- 13 Tom Swift and his Space Solartron (1958)
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TOM SWIFT AND HIS DIVING SEACOPTER

CHAPTER I THE STOLEN CODE

"It's gone! Stolen!" cried Tom Swift in dismay. The tall, young inventor was digging frantically through the drawers of his office desk, scattering papers and blueprints.

"That's impossible!" exclaimed his father, who was searching through his own desk. "The space dictionary was here only yesterday. Did you see it, Bud?" Mr. Swift asked the tall, dark-haired, eighteen-year-old pilot who had just walked in.

"No, Mr. Swift," Bud Barclay replied. Walking over to Tom, Bud grinned.

"What could I do with all those symbols you and your dad use to communicate with space beings? Webster's dictionary is tough enough for me!"

Ordinarily Tom would have smiled, but now he was very serious. "Bud," said the blond-haired boy, "this may be a matter of life and death."

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"Good night! I didn't realize that. Don't forget I just flew in from Frisco this morning."

"Okay," Tom said with a wry smile. "This is the story. Our mysterious space friends are planning to send us a rocket with planetary life aboard."

"What!"

"Yes. And any day now. We're waiting for a message about when it will land at Enterprises and we're to tell them if the time is okay. That's why we need the space dictionary so desperately."

Bud gulped. "Smokin" rockets! If someone else on Earth should send phony signals to these space people, they might drop the rocket in the wrong place!"

"Exactly," said Tom as he paced back and forth.

For months, the Swifts had been in touch with friendly beings from another planet. The first message had been received in the form of a strange black meteorlike missile which had plunged onto the grounds of the Swift Enterprises experimental station.

Later, other messages had been picked up by oscilloscope in the form of weird mathematical symbols. Tom and his father had decoded these and had sent return messages over a powerful transmitter. In time, Mr. Swift had compiled a list of these symbols and their meanings in what he termed a space dictionary. Now these mysterious beings were about to launch a rocket in order to send the Swifts a sam-

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pie of their type of life. In turn, the two inventors were to relay instructions

about how the friendly planeters might survive Earth's atmosphere. Then they would visit this planet. With the space dictionary gone, however, the entire project might take a different twist with disastrous results.

Bud gave a low whistle. "Have you any hunch about who might have taken the dictionary?"

Tom and his father exchanged troubled glances before the younger inventor replied, "The last outsider in this office, so far as we know, was Mun-son Wickliffe."

"But he's a topnotch scientist himself!" Bud pointed out. "He wouldn't stoop to such a thing."

"That's just it." Tom frowned. "He's a man with a fine reputation in research. I just can't believe he would do such a thing!"

Munson Wickliffe presided over a well-equipped laboratory in the nearby town of Thes-saly, where he kept a corps of eager young scientists working around the clock. He was affluent, and had a reputation beyond reproach.

"Just the same, you should pay him a visit," said tall, handsome Mr. Swift, whom Tom greatly resembled.

"Okay, Dad. I'll find out what I can."

"And I'll pass the word to our security division," Bud offered.

The two eighteen-year-old companions hurried off. Bud headed for the plant's security building,

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where he reported the theft to Harlan Ames, the chief officer. Tom hopped into a jeep and roared across the grounds of the experimental station—a vast, four-mile-square enclosure of flat-topped modern buildings and gleaming white airstrips.

At the north end of the station, Tom climbed into his heliplane and whirled aloft. A few minutes after landing on Wickliffe's airstrip he was ushered into the president's office.

Wickliffe, a six-foot, slender man, with sparse black hair and wearing glasses, stepped from behind his desk to shake hands. "Hardly expected to see you again so soon, my dear fellow. Please sit down. What has brought you here?"

As Tom politely explained about the missing space dictionary, Munson seemed to freeze. He glared at the young inventor coldly. "Are you by any chance implying that / might have taken your code book?" he snapped.

"Not at all, sir," said Tom. "But since you were in the office before the dictionary disappeared, we wondered if you might have noticed anything to give us a clue as to who the thief might be."

"Well, I can't! Now, if you'll excuse me, I have some important work of my own to take care of," the man replied icily.

Tom flushed. "I'm sorry to have bothered you," he said, rising. "Dad and I feel

this is a very important matter."

When Tom returned to Shopton, he gave his

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father a quick report on the unsatisfactory interview.

"Too bad Wickliffe took the wrong attitude," the elder inventor said. "Leaves us as much in the dark as ever."

"Have you started working on another dictionary, Dad?" Tom inquired.

"Yes, I'm writing down all the symbols and meanings that I can recall or find in my notes. May help us a bit, though it won't be complete. Suppose you put down all you can think of. We certainly were foolish not to make duplicate copies of our computations."

As he spoke, Bud walked in to report that the security police were launching a full-scale investigation of the theft. Then, trying to cut through the gloom, he turned to Tom and asked:

"Genius boy, any new inventions up your sleeve?"

Instantly Tom's eyes twinkled. "Well, it's a little too big to go up my sleeve, but I am working on something. You ought to like it, Bud-it can fly or swim."

"You mean an underwater airplane?"

"No. A flying submarine."

"Cut the kidding," Bud retorted.

"It's the truth," Tom continued. "It'll even crawl around if necessary on tractor treads."

"No fooling! What do you call it?"

"A diving seacooper."

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Bud stared in amazement. "You mean a helicopter that can travel underwater?"

"Right. In the air the rotor blades provide a positive lift to suspend it, much the same as a helicopter. In water the pitch of the blades is reversed for submerging. And, because water is much denser than air, the blades will whirl slower.

"The big advantage of this kind of submersion," Tom continued, "is that these blades eliminate the need for ballast tanks. With the rotors, the sea-cooper can easily stay at any level beneath the surface the navigator chooses, merely by adjusting the blade pitch."

Walking over to his secret workbench, Tom pushed a button. Instantly a drawing board, with a large blueprint of the seacooper, slid out from the wall.

"Wow!" Bud exclaimed, admiring the drawing of the sleek forty-foot craft.

He noticed that the seacooper was divided into three sections: a cabin at either end, called Compartments A and B-each of which would accommodate three people-and the center section containing the rotor blades. This section was open top and bottom to allow the water in. It had narrow corridors on each side of

it for passengers to walk from one compartment to the other.

Bud looked puzzled. "Which is the front end and which is the rear?" he asked.

"Take your choice." Tom laughed. "The ship

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can travel in either direction. This feature will come in handy should we get into a submarine cave, or other spot, in which it's impossible to turn around."

"Great," Bud said enthusiastically. "So we just back out." Then he looked at Tom inquisitively. "But how do you do all this?"

"The rotor blades, as I've said," Tom replied, "are for diving and keeping the seacopter at any desired level under water."

"Okay," said Bud. "And I suppose the seacopter floats upward and surfaces without power. Now tell me, how do you propel this contraption once you're under water?"

Tom pointed to the undersides of the two compartments. In the midsections of them were triangular protrusions.

"These are jets," he said, "powered by superheated steam created by atomic reactors."

"I see," said Bud. "And they're your steering apparatus?"

"Yes. The jets are on a gimbal system, so they can be rotated through 360 degrees."

Bud nodded. "Very clever, pal." Then he grinned. "What goes with this gadget? You going on an oyster-hunting expedition?"

"You're nearly right." Tom chuckled. "But instead of diving for pearls, we're going after gold."

"Explain, chum!"

As Tom stowed the blueprints away, he said, "A

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couple friends of mine, George Braun and Hamilton Teller, who are expert oceanographers, have a theory that there may be ancient cities buried under the Atlantic Ocean."

"Buried cities!" Bud's voice throbbed with interest as he sensed the promise of a new adventure. "You mean on the lost continent of Atlantis?"

"That's the general idea," Tom said. "Ham and George want to search along the Atlantic Ridge that's supposed to be the top of that lost continent."

"Even if it's the top, that ridge is far under water," said Bud. "And way out in the Atlantic."

"That's right," said Tom. "Anyhow, Ham and George needed some kind of undersea craft in which to make their exploration, so I figured a seacopter might be the answer."

"Jumpin' jets!" Bud exclaimed. "Count me in on that trip, will you?"

Tom grinned. "You're as good as aboard, Admiral. Matter of fact, I'm making

a test cruise tomorrow in one of the seacopter sections. They can be operated individually with the jets for a dive and will surface automatically. The only thing they won't do is stay under water."

"That's a good idea in case of an emergency," said Bud. "Well, see you tomorrow."

"We'll make the test unless Dad and I get a message from our space friends," Tom said, his face clouding again.

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After Bud left, the young inventor turned to his father. "Let's start working on those symbols."

In order to write down as many of them as they could from memory, he and Mr. Swift worked far into the night. Meanwhile, plant engineers stood by in case any messages started coming through from the space people. But morning dawned without any communications being received.

At ten o'clock the Sky Queen, Tom's huge three-decker Flying Lab, was raised from its underground hangar. Atomic-powered and jet-lifted, this great airplane could fly at tremendous speeds and altitudes.

Soon Compartment B of the seacopter was loaded into the cargo hold of the Sky Queen. Slim Davis, a company test pilot, and three crewmen were to accompany the boys to the testing area.

Bud, standing by to watch, remarked to Tom that he had not noticed the fins on the front of the compartment when he had looked at the blueprint. These fins extended from the bow one third of the way back on each side at water-level position.

"They're really diving planes and weren't indicated on the drawing," Tom explained, "because they're not part of the seacopter. I had these put on Compartment B just for the test this morning. We'll be able to go deeper. You notice that the tractor treads have not been installed. We won't need them for this trip."

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"Everything is ready," a workman reported.

The group climbed aboard the Sky Queen. Tom took the controls and gunned the nuclear engines into life. The huge ship rose straight up into the air, then sped eastward to the Atlantic.

"Where are we going for the test?" asked Bud, who was seated alongside Tom.

"About a hundred miles from shore, just beyond the continental shelf. I want to make the test in really deep water."

"The land does slope outward pretty gradually under water," Bud agreed.

Just off the continental shelf, Tom turned the controls over to Slim. "Ease her down and stand right over the waves," he ordered.

He and Bud, accompanied by a crewman, went to the ship's hangar where

the seacopter compartment sat in a cradle. Tom and Bud climbed in through a round hatch at the top. When this was sealed and the boys were seated side by side at the controls in the bow, Tom flashed a red signal light in the tail. The crewman clicked a wall switch which controlled the hatch in the hangar's floor. Compartment B was released from its cradle and lowered on a hydraulic winch into the sea.

"Hang on, flyboy!" Bud chuckled as Tom nosed his small craft bottomward.

"This is some deep-sea roller coaster!"

Down, down they plunged. Outside the quartz windows of the cabin, the greenish ocean water

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grew darker and darker. The boys watched in awe as fish of various sizes and shapes came into view.

Finally it became so dark Tom switched on the interior lights. Reading the depth gauge, he said, "We're a hundred fathoms down, Bud!"

"That's six hundred feet," Bud mused. "Tom, this is great! You'll revolutionize underwater travel."

Suddenly Bud felt a spray of water against his wrist. Looking down, he exclaimed in horror, "Tom! The cabin's leaking!"

A moment later water began to gush in at a terrifying rate!

CHAPTER 2

ESCAPE FROM THE DEEP

"BREAK OUT the diving suits!" Tom cried in alarm as water poured in along one of the seams.

While Bud dashed to a locker to pull out the rigid, space-suit type of gear, Tom rammed the jet power to maximum output and threw the dive control to up position. Compartment B started toward the surface, but the water was already several inches deep.

"We'll have to abandon ship!" Bud exclaimed, as he tossed a suit to Tom.

The young inventor had no intention of giving up yet. He had been in tight spots before in his many hazardous adventures, beginning with a South American trip in his Flying Lab. Recently, while building a space station, Tom had weathered the attacks of mysterious enemies and the terrifying forces of nature.

Now, as he watched the depth gauge and the

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fast-mounting water, Tom began to doubt that the compartment could rise much farther. At any moment the flooded motors and the electrical system might conk out.

"How long are you going to wait?" Bud cried' frantically as they clamped on their helmets.

Tom was thinking fast. He looked at the depth gauge. Four hundred and fifty

feet. The gauge was now creeping hesitantly and the water stood at the boys' waists.

Tom made his decision. He would abandon ship! Signaling to Bud, he switched on the hydraulic system and watched the hatch intently. It began to open! The boys waded to a position beneath it, ready to float through the opening.

Suddenly there was a flash! All the machinery stopped abruptly, plunging the compartment into darkness. The hatch had opened only two notches, not wide enough for the boys to escape!

Fear clutching them, Tom and Bud wondered if the controls had frozen, making it impossible for them to raise the hatch by hand. Were they trapped? The boys would not know this until the cabin was filled with water, making the pressure inside and out the same. As the water reached the ceiling, they began to shove the hatch with all the strength they could muster at a four-hundred-foot depth. The cover yielded! Tom and Bud floated through!

It was only a matter of minutes before their

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automatically pressurized suits brought them to the surface. The men in the Sky Queen saw them and quickly hauled the boys aboard.

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"Man alive, am I glad to see you two!" exclaimed Slim Davis, after the divers' suits had been removed.

"We nearly ended up as a couple of canned sardines!" Bud admitted ruefully, as Tom gave a quick account of their mishap. "I certainly hated to abandon the seacopter cabin," he added. "And I can't understand why it leaked."

"We were fearful that might happen," said Slim. "An emergency radio call came from Art Wiltessa at the plant. It seems that orders got fouled up and the high-pressure sealer was omitted from one of the seams on Compartment B."

"So that's why we sprang a leak!" said Tom,

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glad to know that there was nothing wrong with the basic design of his seacopter.

Under his direction, the lost compartment fortunately was salvaged and brought back to Swift Enterprises. Tom, directing repairs on it the next day, asked Bud to check with Harlan Ames as to developments in finding the person who had taken the space dictionary.

"No leads on him yet," the security officer reported in disappointment. "But we're working on it."

The telephone rang. Tom was calling Bud. "Are you game for another pressure-test dive?" Tom asked. "I want to try out Compartment A."

"Any time, skipper."

"Then hop over to my lab. By the way, I have a couple of visitors here who want to ride with us in the Sky Queen."

Bud hurried to Tom's private laboratory in one of the larger buildings. Sitting on the edge of an experimental table were two attractive girls.

One was Tom's sister, Sandra Swift—a blond, blue-eyed, seventeen-year-old with a gay smile. Sandy, a flying enthusiast, was Bud Barclay's favorite date. The other girl was Phyllis Newton, Tom's particular friend, whose long, dark hair made her a striking contrast to Sandy. Phyl, also seventeen, was the daughter of Ned Newton, Mr. Swift's trusted friend since boyhood days. He now held

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the responsible position of manager of the Swift Construction Company, which manufactured aircraft and other items invented by the Swifts.

"Hey! Why didn't you warn me, Tom?" exclaimed Bud delightedly. "I'd have spruced up a bit."

Sandy laughed, then said, "We thought you might need a couple of mascots, so we talked Tom into taking us along."

"Guaranteed to bring you good luck," added Phyl.

"We may need it if we get another dunking," said Bud wryly. Then he grinned. "Too bad you girls aren't mermaids. Then we wouldn't have to worry."

Sandy threw back her head. "Who'd want to be a deep-sea siren?"

"Right," said Phyl. "I'll take my chances the way I am."

Half an hour later the Sky Queen was soaring eastward. Sandy, who had been taught to fly by her father and brother, took the controls of the mammoth craft for the first time in a long while.

"Oh, Tom, it's out of this world!" she cried.

"Well, don't blow us all up!" Bud called.

When they reached the area for the test dive, Slim Davis took over the controls and the boys got ready to submerge. Compartment A of the sea-copter had been checked and double-checked before take-off to make certain that it contained the

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high-pressure sealant which Compartment B had lacked. Nevertheless, Tom decided that he and Bud would don diving suits and make sure their helmets and air tanks were ready for instant use.

"Good luck!" Sandy and Phyl called as the two boys climbed through the hatch.

As the compartment dropped into the water, Tom flipped the reactor switch, producing a full head of superheated steam almost instantly. "She's working perfectly, Bud."

One hundred fathoms down there was no sign of a leak, and Tom now felt reasonably confident that there would be no trouble on this test dive. At a

hundred and fifty fathoms he leveled off and gradually opened the jet-pipe throttles on the control panel. With a swoosh the compartment knifed through the sea.

"Fifty knots!" gasped Bud, watching the needle of the speed indicator. "Nice going, sailor!"

"It'll do for the first tryout," Tom agreed with a quiet smile of satisfaction.

"Just out of curiosity, what produces the jet power?" Bud asked.

"Each compartment has a miniature atomic reactor which manufactures the superheated steam," Tom explained. "This steam is then released out the jet pipes underneath the compartment. When the seacopter is all assembled, steam for the jets will be channeled from the excess used to drive the rotor blades."

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Tom steered the craft from side to side, performing various maneuvers. Then he turned the controls over to Bud, who was soon handling the seacopter section like a veteran submariner.

Satisfied with the ship's performance, Tom decided to surface and took over the controls again. For the first time, Bud had a leisurely chance to examine the compartment and opened door after door. Every item of equipment had been planned perfectly to fit into the small available space. Besides the electric generator, air supply, and air-conditioning system, there were also emergency rations, a tool locker, and a small lab for scientific work.

"Wow! You've got everything here but the kitchen sink!" commented Bud admiringly.

"We have one of those in Compartment B." Tom grinned. "It's part of the galley."

In a moment the craft surfaced and soon the boys were back on board the Sky Queen.

"How'd it go, skipper?" Slim Davis asked.

"Not a hitch. She handled like a dream."

"Any mermaids?" questioned Sandy with a sparkle of mischief in her eyes.

Bud grinned back at her. "A few, but they were all redheads and I prefer blondes."

The test dive was the chief topic of conversation at dinner that evening in the Swift home. Tom's mother, an attractive, gentle person, listened attentively. As she served warm pie for dessert, she

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looked first at her husband and then at her son.

"I wish you two Toms would invent things that weren't so risky!" she said.

"If my latest invention turns out half as well as this pie, Mother, you haven't a thing to worry about," Tom said, smiling. He knew that secretly she was very proud of his achievements as well as those of his father.

After dinner, the family gathered in the big, cheerful living room and talked

about Tom's future expedition with Ham Teller and George Braun in search of ancient wealth under the sea.

Suddenly a loud buzzing noise interrupted their conversation. "The alarm system!" exclaimed Sandy. "Wonder who's calling?"

"I'll go see," said Tom, getting up.

The Swift residence was surrounded by a magnetic field which touched off a signal when broken. The family and their friends avoided this by wearing wrist watches containing small neutral-izer coils. But the alarm always sounded at the approach of prowlers or unexpected visitors.

When Tom opened the door, he was surprised to see William Clyde, the pudgy, middle-aged mayor of Shopton. The man was excited.

"Come in, sir," Tom invited him.

Hardly had the mayor entered when he burst out, "You Swifts have got to stop that rocket coming here from outer space! Otherwise, the whole town will be blown up!"

CHAPTER 3

THE MYSTERIOUS MESSAGE

MAYOR CLYDE'S outburst caught Tom by surprise, but he politely ushered him into the living room. The man nodded nervously to the rest of the family as Tom said, "Please sit down, sir."

The caller sank into an easy chair. As he mopped his brow with a handkerchief, he reiterated why he was there. "You must stop that rocket," he said excitedly. "Do you understand?"

Mr. Swift regarded him quizzically. "Please tell us where you got your information, Mayor."

"I received a phone call just fifteen minutes ago," the official explained.

"Whoever it was gave no name, but he told me the Swifts had received a message from outer space-a message saying a rocket would soon land in Shopton!"

"That certainly doesn't mean it will be an explosive rocket," Mr. Swift pointed out. "I'm sure

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from the message we received that it will not be."

"Do you expect me to stand by and do nothing when the lives of thousands of people are at stake?" the mayor stormed. "Explosive or not, that rocket could cause great havoc in a town like Shopton!"

Tom glanced at his father, uncertain whether or not to reveal the secret details of the Swifts' communication with their space friends.

Mr. Swift took the cue. "I'll speak frankly, Mayor," he said. "We have received messages from outer space. They came in code form, which we compiled into a space dictionary. That dictionary has been stolen."

Mayor Clyde gasped. "You mean the thief is the person who called me?"

"That's quite probable," Tom spoke up. "The latest message was written in the back of the book -it was the one concerning the rocket."

"Our security division has been working on the robbery," Mr. Swift added.

"Tom, call Ames and find out if he has any news."

Going to the phone alcove, the boy dialed Har-lan Ames's private number, only to learn that there was nothing new to report. Tom informed Ames of the anonymous phone call to the mayor. Then he added, "Keep working on it, Harlan, and let us know the minute you learn anything!"

A worried frown creased Tom's forehead as he hung up. Could the theft have been an inside job by someone working at the plant-perhaps a

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trusted employee? And if so, what was the motive? Did the thief plan to sell the information to some enemy of Tom or his father?

Returning to the living room, he reported Ames's failure so far to solve the mystery. From Mr. Swift's expression, it was plain that he shared Tom's concern. But both father and son tried to reassure Mayor Clyde. The official, however, could not be calmed. He begged them to send a message to their space friends, calling off the rocket plans.

"Very well," Mr. Swift agreed. "We'll try to contact them tonight."

Tom was amazed by this sudden decision. As soon as the mayor left, he turned to his father. "Dad, did you really mean that about contacting our space friends? This is our chance to learn something about life on other planets, something scientists have dreamed of for centuries! We can't throw it away!"

"Don't worry, Tom," Mr. Swift replied. "Our message will simply ask the space people to hold off launching the rocket for a while. That will give us time to work out more of the code and also to calm down the mayor and any others who may have heard the news."

Tom grinned sheepishly. "I should have known you wouldn't back down."

Mrs. Swift and Sandy had listened in dismay to the mayor's remarks. Now Sandy burst out, "If someone's trying to make trouble, he may do

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something treacherous! Please be careful, Dad! And you too, Tom!"

"We'll be on our guard, my dear," her father promised. "Tom, we'd better get busy on that message right away!"

With Tom at the wheel of his sports car, they sped to the plant. Darkness had fallen, but the grounds of Swift Enterprises were illuminated with powerful floodlights.

Flicking to the proper wave length on his electronic key, Tom beamed open the massive gates and drove to the large laboratory building. Twin radio pylons, with red warning beacons for aircraft, towered overhead.

Entering the building, father and son hurried to the special room housing the

master oscilloscope. George Dilling, the young radio chief of Swift Enterprises, was there.

"No messages," he said. "We've had a twenty-four-hour-" Dilling interrupted himself to cry out, "Something's coming through now!"

Twin circles like a figure eight, pierced by a jagged line, appeared on the scope. This was followed by a circle in an ellipse. Then the message died away and the screen resumed its normal light pattern.

Mr. Swift whipped a notebook from his pocket on which he had made recent calculations and leafed through the pages. "It means 'Continue course/' he translated.

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"I don't get it," Tom said, puzzled. "There must be more coming." But though they waited for fifteen minutes, there were no further messages.

"Try sending our own message and see if they reply," Mr. Swift suggested.

Borrowing the notebook, Tom sat down at the transmitter and began beaming impulses into space. Seconds later Mr. Swift, who was monitoring the signal on the oscilloscope, cried out, "Hold it, Tom! We're getting interference!" Instead of showing the symbols Tom was sending, the scope was acting wildly. Star bursts of light nickered back and forth across the screen.

"Someone's jamming our signal!" Tom exclaimed.

He waited a few moments until the flashes died away, then tried once more to send the message. Again the scope exploded into wild flashes of light.

"No doubt about it," the elder inventor commented grimly. "Someone is doing his best to prevent us from contacting our space friends! My hunch is that he's the same person who either stole our space dictionary or obtained it from the thief."

Tom snapped his fingers as a sudden idea occurred to him. "Maybe he's the person who was sending that 'Continue course' message!"

Mr. Swift looked startled. "In other words, it didn't come from outer space."

"Right, Dad. And that means we may be able to

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track him down by getting a fix on his signals!"

George Billing spoke up. "I'll get a crew busy right away tracking down that interference!" He picked up a phone and issued orders.

Tom and his father waited until Billing had finished and was ready to take over once more at the oscilloscope. Then the Swifts drove home, gripped by an uneasy feeling that more trouble lay in store.

What was the enemy's motive in jamming their beam? And what were the full contents of the mysterious message?

In vain, Tom pondered the question until the next day, when he turned his attention to the center unit of the diving seacopter. The young inventor was not fully satisfied with the performance of the rotor blades in a tank test.

"Perhaps," he mused, "the mechanism for changing the blade pitch could be improved."

All morning and afternoon he worked on the problem, using a test chamber to study the fluid-flow characteristics around various shapes and types of blades. By four o'clock he had sketched out a new satisfactory design. The blade was slightly more slender and squarer at the end than the old ones. He handed the design over to Hank Sterling, the chief engineer of the Swifts' pattern-making division.

"Have a new set of blades cast and machined

THE MYSTERIOUS MESSAGE 27

according to these drawings, will you, Hank?" he asked. "And tell Art Wiltessa to stand by for some changes in the blade-pitch mechanism."

At home that evening Tom was poring over some oceanography charts in his workroom when Bud Barclay dropped in for a visit.

"What cooks?" asked Bud, draping himself in a chair. "Are you mapping our next cruise in the seacopter?"

"Not exactly. Just studying the profile of the Atlantic Ridge."

"Well, tell me about it. I'm as uninformed as a wooden horse when it comes to undersea mountains."

"The Atlantic Ridge runs like a spine along the ocean floor, from up near Iceland clear down between South America and Africa."

"And that's where your friends think we'll find the lost continent of Atlantis?" asked Bud.

Tom nodded. "Some scientists don't take much stock in the theory. Others are sure it's true. They claim that the ancient Egyptians, the Aztecs of Mexico, and the Mayas of Central America all got their civilization from a lost land somewhere in mid-Atlantic."

Bud stared at Tom keenly. "What's your guess, genius boy?"

The young inventor shrugged. "Hard to say till we get more evidence. But take a look at this."

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He pointed to a spot on the chart near the Cape Verde Islands. "Notice this formation of underwater peaks?"

"Sure. What about them?"

"They could be more than just the upjuttings of a mountainside."

"Meaning what?" asked Bud, fascinated by the hint of mystery in Tom's voice.

"I believe that they may be part of a city wall or great ceremonial grounds with pyramids. This is where I think George Braun and Ham Teller ought to start their search."

Bud bounced out of his chair excitedly. "Tom, on our next test of the seacopter, why don't we go there and take a look?"

CHAPTER 4

A BLAST FROM SPACE

TOM GRINNED at his friend's enthusiasm. "Whoa! Slow down, boy! There's a lot of work to be done yet before the seacopter will be ready for a long-distance cruise."

"Well, make it soon. I can hardly wait to start searching for that buried city!"

"Which reminds me," added Tom, "I have another project under way that I haven't told you about yet."

"What's the deal?"

"I'll show it to you at the plant tomorrow."

Tom spent the next morning perfecting the mechanism for controlling the blade pitch of the seacopter's rotors. Art Wiltessa promised to have the system installed within two to three days.

Shortly before lunchtime Bud came barging into Tom's office. "How about showing me that new project you mentioned?"

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"Sure thing, Bud. It's in the photographic department. Let's drive over now."

Hopping into a jeep, the boys drove to the three-story laboratory building.

Tom beamed open a sliding steel panel, then drove onto a hydraulic lift which whisked them up to the top floor. Here they were carried down the quarter-mile-long plant wing by a silent conveyor belt. It automatically parked the jeep for them near the entrance to the photographic laboratory.

Inside, experimental work on all kinds of cameras was taking place. Tom led Bud to a device which looked like a supersized television camera. It bristled with knobs and dials, and had what appeared to be a TV screen at the rear of the housing.

"Quite a toy," said Bud, scratching his head. "What does it do?"

"Takes motion pictures and records sounds through walls or solid objects,"

Tom replied. "Five seconds later it projects the result on the screen and player.

Actually, it's an improvement on Dad's old television detector."

"The all-seeing eye!" Bud gasped. "What do you call this super-snooper?"

"Haven't had time to dope out a name yet. Have you any suggestions?"

"How about the Eye-Spy camera?"

"Perfect!" Tom chuckled. "I'm working on a

A BLAST FROM SPACE 31

color model but it's not ready yet. Would you like to see this black-and-white job in action?"

"Sure would."

Tom wheeled the camera dolly over to the corridor side of the room.

"We'll watch the traffic out in the hall," he remarked, flicking a switch and tuning several dials.

Seconds later, a clear view of the corridor sprang into focus on the screen. Along came a roly-poly figure, bald-headed and bowlegged, pushing a lunch cart loaded with food.

"Chow Winkler!" Tom said, grinning.

Chow, a happy-go-lucky, former chuck-wagon cook from Texas, had met the Swifts while they were engaged in atomic research in the Southwest. He had returned to Shopton with them to become chef for the Swifts at the Enterprises plant, and had later accompanied Tom on some of his adventures.

"Wow! Look at that checked shirt Chow's wearing," Bud muttered. "Good thing we're not using your new color model or he'd probably blow up the camera!"

Chow had a famous weakness for gaudy-colored cowboy shirts, preferring large blocked combinations of purple and orange, or red and green.

As Tom panned the camera to keep the cook centered on the screen, Chow paused every few

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steps to sample the food from various containers. After each taste, he stuck out his tongue and made a horrible face. The boys shook with laughter at the spectacle.

"It's not Chow's own cooking, that's for sure," Bud commented.

"In any case, I hope the food isn't for us," said Tom. "Chow acts as if it were poison!"

After the Texan had delivered the food to the metallurgy department next door, Tom went outside and called him into the photographic lab. Pretending to be stern, he said:

"What's the big idea of sampling food from that lunch cart, Chow? Don't you get enough to eat in your own kitchen?"

The cook's sun-bronzed face wrinkled in dismay. "Brand my galley pans," he said, "I was only checkin' up on that new fry-cook what was hired in the main kitchen. He claims he used to rustle grub at some big New York hotel, but the old fourflusher can't even-"

Suddenly Chow's jaw dropped open in a look of dumfounded amazement.

"Say, how come you-all knew I was tastin' them vittles? Wasn't no one else out there but me. I'm dead sure o' that!"

Tom laughed. "You really want to know, Chow?"

"More o' your newfangled contraptions?" demanded the cook with a sidewise glance.

"Here, take a look at yourself," Tom ordered.

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After reversing the film track, he pushed a button and the sequence flashed back on the screen.

Chow stared, goggle-eyed. "Brand my motor scooter an' rope me fer a two-headed calf! Where'd them pictures come from?"

When Tom explained, the grizzled old Westerner shook his head sadly.

"From now on, a critter won't have no privacy 'round here nohow. How am I goin' to cook up any fancy surprise dishes fer you with that camera snoopin' at me?"

Bud chuckled. "If you're dreaming up any more surprises like that sagebrush stew and pickled rattlesnake, maybe we're just as well off!"

The boys' fun was suddenly cut off by a voice over the public-address system. "Tom Swift, please report at the master oscilloscope at once! Message coming through!"

Tom dashed out of the lab and hurried to an adjoining room where the oscilloscope was housed. He saw his father jotting down symbols at high speed. For several moments unusual mathematical designs continued to appear on the scope. Then the screen went blank.

"What does it say, Dad? Can you translate it?" Tom asked breathlessly.

"Not yet, son." Mr. Swift thumbed through his notebook and wrote down several words, then looked up with a worried frown. "Decoding this will take some hard work. See if you can remember any of these symbols."

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Between them, Tom and his father struggled with the message for over an hour, covering sheet after sheet in their computations. Finally they worked out the meaning:

Exploding missile will reach you soon to warn of approach of great rocket.

The two inventors faced each other tensely. Neither of them dared to voice the disturbing thought that raced into their minds. What if the missile exploded in the middle of Shopton!

Before the Swifts could speak, the phone jangled. George Billing leaped out of his chair to answer it, then turned to the Swifts.

A BLAST FROM SPACE

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"For one of you. It's the mayor."

"I'll take it!" Tom seized the phone. "Hello? Tom Swift Jr. speaking."

Mayor Clyde's voice crackled over the receiver. "I just got word about that exploding missile! Confound it, Swift, you and your father promised me you'd stop the infernal thing from being launched!"

"What!" Tom cried unbelievably. "Who-"

"Don't ask questions!" Mayor Clyde exploded. "You said you'd call off this dangerous business-"

"We tried to communicate with our space

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friends," Tom explained, "but someone kept jamming our signals."

"Never mind making excuses. You're responsible for this outrage. Do something before Shopton is wiped out!" the mayor demanded. Before Tom could protest or find out how the man had received the news, a loud click told him the mayor had hung up.

"What's wrong, son? More trouble?" Mr. Swift's face was anxious.

"Clyde has heard about the missile, Dad!"

The words were hardly out of Tom's mouth when the phone rang again. This time the caller was Dan Perkins, editor of the Shopton Evening Bulletin.

In an even, icy tone he informed Tom that he had heard the Swifts were going too far this time in their scientific work. "You must keep that missile from landing on this town. If it strikes Shop-ton, you will be nothing but murderers!"

Every word was clearly audible to Mr. Swift, halfway across the room. As Tom put down the phone, he turned to his father desperately.

"Dad! What can we do?"

Mr. Swift paced about the room with clenched fists. "Nothing, I'm afraid, Tom! We're absolutely - Listen!"

A moment later there was a blinding flash in the sky, followed by a terrific and frightening roar!

CHAPTER 5

WORRIED SCIENTISTS

THE FORCE of the explosion over Swift Enterprises shook the buildings. In the room where Tom and his father stood, books and small objects tumbled to the floor. Two of the windowpanes caved in. The Swifts dashed to one of them, followed by George Billing.

Outside, the sky was darkened by a cloud of fine dust and fragments raining down on the experimental station.

"That missile must have exploded just above us!" gasped the elder scientist.

"I'd better go out and check!" Tom exclaimed. "Thank goodness it was above and not among us!"

"Our space friends must have planned it that way," Mr. Swift replied as Tom raced from the room and hurried outdoors. Pandemonium prevailed as guards and employees swarmed around

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the grounds. Tom felt a hand on his shoulder as Bud Barclay caught up with him.

"What gives, boy? Someone trying to bomb Swift Enterprises?"

"I think it was a signal from our space friends."

"Not a very friendly act," Bud grunted.

"It's a preliminary notice that the rocket's coming," said Tom, and then quickly explained. "Come on. Let's see what damage has been done."

A quick survey convinced Tom that no real damage had been done and no

one had been hurt, so he dashed back to his father, with Bud at his heels.

"Everything's okay, Dad," he reported. "Only minor repairs will be necessary."

Mr. Swift was just hanging up the phone. "I talked to the dispatcher in the control tower. He actually saw the explosion. Says it happened several hundred feet up, but he had no chance to observe the missile itself."

"Maybe we'd better make an announcement to calm down the workers a bit," Tom suggested.

"Good idea, son."

Lifting the phone again, Mr. Swift made another call. A moment later a voice from a loudspeaker boomed out over the grounds:

"Please return to your work. Everything is under control. The blast was part of an experiment in communication with outer space. Repeat -please return to your work!"

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Meanwhile, Tom was warming up the powerful space transmitter. Again and again he tried to beam through a message, but each time the oscilloscope flashed and flickered wildly.

"Did the blast ruin the machine?" Bud asked.

Tom shook his head. "Someone's jamming our signal again," he said, irritated.

"Again?" Bud asked, puzzled.

"It happened the first time we tried sending after our code book was stolen," Tom answered.

Billing, who was still there, spoke up. "We've had no luck getting a fix on the person who's responsible. At that frequency it's pretty tricky to track down the source."

"Well, keep trying." Tom turned to his father, a worried look on his face. "Dad, I wonder what happened down in Shopton. Let's take a ride through town."

"All right. While we're down there, we'll have another talk with Mayor Clyde."

"Let me drive you," offered Bud, who was eager to keep in touch with developments.

The three hurried out to Bud's fire-engine-red convertible, which was parked near the entrance gate. They got in and sped through the outskirts of Shopton, heading toward the center of town.

Everywhere, people stood in small groups, discussing the explosion. Broken windowpanes and a few shattered store fronts were in evidence, but there were no other signs of damage.

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Arriving at the Town Hall, Bud parked the car and they walked inside. A flash bulb popped as the three entered the office of Mayor Clyde, who was in the middle of a statement to reporters gathered about him. A broad smile of welcome spread over his face at sight of the Swifts.

"Congratulations, both of you!" he exclaimed, shaking hands first with Mr. Swift and then with Tom. "That was a brilliant idea, making the missile explode in mid-air."

"Quite so, quite so," murmured Mr. Swift, "but it wasn't my idea."

"It was young Tom's then, I presume," the mayor went on, brushing aside the boy's prompt denial.

"At any rate," Mr. Swift said, "our company will pay for any damages that may have been caused by the blast."

Editor Perkins pressed the scientists for an interview, but the Swifts managed to dodge most of his questions without divulging anything about their communications with the space beings.

"By the way," Tom said, as the interview ended, "we'd like to know how you and Mayor Clyde found out in advance about the missile."

Both the editor and the mayor gave the same answer. A brief message had come by phone, and the caller had hung up immediately without telling his name.

"I see," said Mr. Swift.

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After he and the boys had left and were in the car once more, Bud's face broke into a great grin and he chuckled. "The Swifts are ace-high in Shopton right now!"

"The question is how long can we stay that way?" returned Mr. Swift with a wry smile.

Tom scowled thoughtfully. "If only we could get our hands on the thief who stole that space dictionary! I wonder how much more talking he'll do?"

"So far, we can't even be sure it's the thief who made those phone calls," his father reminded him.

Late that afternoon, when Tom and his father were alone in their private office, Miss Trent buzzed them on the intercom. Tom picked it up.

"Mr. Munson Wickliffe is here," the secretary announced.

"What!" Tom exclaimed, then added, "Show him in, please."

The tall, thin scientist walked into the office, smiling cordially. He acted as though his curt interview with Tom a few days earlier had never taken place. But his eyes, behind their hornrimmed spectacles, studied the two inventors with a cold, piercing stare.

"An amazing phenomenon-that blast we had this morning," he remarked as he shook hands and took a chair.

"I'm afraid that it gave Shopton quite a scare," Tom said.

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"I must congratulate you on the way you made the missile explode before it struck the earth," Wickliffe went on suavely.

Tom wondered if the remark was meant to be sarcastic. "You've read the news accounts, then?" he inquired.

"Yes, there were bulletins on radio and TV, and of course the newspapers ran an extra." Wickliffe paused as he clipped the end off a cigar and lit it. "I presume there's no doubt the missile did come from outer space?" he inquired casually.

"No doubt at all," Mr. Swift admitted.

"Were you able to collect any fragments?"

"A small quantity. They're being analyzed now, but so far, no unknown elements have shown up."

"Your findings will be of great interest to scientists all over the country. To government experts, too," Wickliffe added.

As the conversation continued, Tom puzzled over the real purpose of Wickliffe's visit. He asked numerous questions which the Swifts answered politely but cautiously. They discussed the scientific aspects of the strange missile, but made no mention of the fact that it was intended as a warning signal by their space friends.

When their visitor finally left, Tom asked his father, "What do you suppose Wickliffe was after?"

"Fishing for information, I suppose. But I doubt if he learned much."

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"I'd like to know myself when that rocket's coming!" Tom uneasily fingered some papers on his desk, then paced about the room. "And it's to be soon according to the report."

"You realize, of course," put in Mr. Swift quietly, "that the message 'Continue course' may have had something to do with the rocket. Launched from such a distance, it puts all of us here at the plant in danger, even if it misses the town of Shopton completely."

"Don't I know it! A thousandth of a degree off and whammo!" Tom stared out the window, realizing what a lush target for destruction Swift Enterprises offered, with its flat, sprawling buildings. Resuming his pacing, he muttered tensely:

"If only we could find some way to deflect the rocket to a safe place!"

Mr. Swift suggested that their space friends might be planning to guide the rocket by triangulation of star beams. This was the principle of the Spacelane Brain used in Tom's own rocket ship, the Star Spear. Three different stars were used to provide a fix for keeping the rocket aimed on target.

"If that's the case," continued the elder scientist, "we might try shooting through one of the beams and change the rocket's course. On the other hand, if the rocket is being guided by some other homing device--"

He frowned, plunging into deep thought. Tom

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suggested another plan, and for the next hour they batted the problem back and forth. Finally it was decided to concentrate on trying to learn where the launching site of the rocket was.

"Chances are it'll take off from that Martian satellite our friends are using as a base," remarked Tom. "Let's try that first."

He figured that if they could find the launching site, they might be able to detect when the rocket was fired. Then, by tracking its course and using an ultrahigh-frequency beam, they might change the rocket's course before it struck Shopton.

That evening and all the next day Tom and his father worked feverishly to rig up a new and powerful radar set. With this equipment, they hoped to pierce the space void and locate the blastoff site of the rocket.

After dinner that night they drove back to the plant for the first trial, accompanied by Bud Barclay. The radar controls were set up in the same room as the master oscilloscope.

Bud and Mr. Swift watched tensely as Tom adjusted the numerous knobs and dials, then began pulsing the radar beam out into space.

Suddenly Bud gave a startled whoop. "Look! You've picked up something!" A blip of light had appeared on the radar screen!

CHAPTER 6

INQUISITIVE CALLERS

THE BLIP grew brighter and more distinct as it moved slowly across the scope. Bud gripped Tom's shoulder in excitement.

"It's coming closer!"

"A space visitor, all right," muttered Mr. Swift, "But is it our friends?"

Tom watched keenly, his hands busy on the control knobs. "We'll track it for a while and see if it—"

Suddenly the image flared into brilliance, then vanished completely. Tom gave a groan of disappointment.

"There's our answer. Just a false alarm!"

"What in the name of astronautics was it?" Bud asked.

"Meteor, most likely," explained Tom. "Bigger than average. Burned up as it hit the atmosphere."

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"Son, let's try once more to beam a message through to the space people," suggested Mr. Swift. "It's a slim hope, but we might have a change of luck."

"It won't hurt to try," Tom agreed.

He warmed up the powerful space transmitter and began sending the symbols for "Request you delay sending rocket."

Bud gave a gleeful shout. "It's going through, pal! They're not jamming us!"

The symbols were now showing up clear and distinct on the oscilloscope, with no sign of interference.

"So far, so good," Tom said as he finished transmitting the message. "Let's hope our space friends picked it up."

They waited a while till a flicker on the scope snapped them all to attention. A symbol appeared, faded, and was followed by another. Then the scope went blank. Mr. Swift whipped out his notebook and decoded.

"Five days" was the translation.

Bud gave a whistle of relief. "Not very long, but at least it's a breathing spell," he commented.

To his surprise, Tom said he thought the message was a phony one.

"Why so?" Bud asked.

"Those Martians are highly intelligent beings. Scientifically they're way ahead of us. If they wanted to give us a time schedule, it wouldn't be

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as loose as 'five days.' Chances are they'd pinpoint the rocket launching in hours, minutes, and seconds."

Mr. Swift nodded gloomily. "I'm afraid that you're right, son. It was probably a hoax by the same person who's been jamming our sending set."

Tom manned the transmitter again and repeated his original message. The same reply flashed on the oscilloscope.

Still distrustful, he switched back to the radar set and spent the rest of the evening trying to ferret out the launching site in outer space. But despite the help of Bud and Mr. Swift, all their efforts proved fruitless.

"We'll give up for tonight," sighed Mr. Swift wearily. "Tomorrow you'd better get back to work on your seacopter, Tom. Billing and I will take over this radar work."

Ten o'clock the next morning found Tom in the plant machine shop. Art Wiltessa was showing him the newly cast rotor blades. Light yet extremely strong, they shone with a polished white gleam.

"They've been machined to the final dimensions, Tom. Want to run any tests?"

Tom nodded. "We'll pressure test the whole rotor section this afternoon."

By one-thirty a crane was lifting the rotor section of the seacopter into a mammoth square con-

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crete tank set in bedrock at one end of the Enterprises grounds. Mechanics climbed down into the tank by an iron ladder. They clamped the housing of the section tightly in its cradle and hooked up a number of remote controls. Soon water began to gush in from a row of four-inch nozzles.

As the tank was being flooded, Bud Barclay came over to speak to Tom.

"How are you going to make your test?" he asked.

Tom replied, "We'll run the turbine at top speed and pile on all the pressure we can build up. If any parts won't stand the strain, this is the time for us to find it out."

When the tank was full of water, a two-foot-thick steel door slid shut, sealing the tank tight.

"Ready!" Tom cried, and gave the signal to apply pressure.

Art Wiltessa pulled a lever and spun a valve wide open. At the same time, Tom switched on the atomic reactor and shot steam to the turbine, using the panel of remote controls. The steel lid of the tank gave off a dull humming roar. Several minutes went by. Tom studied a cluster of gauges connected to various strain points on the hull. So far everything was standing up perfectly. The rotor blades were now spinning at 3,700 revolutions per minute.

Meanwhile, Art and Bud had their eyes glued to the main pressure gauge.

This was calibrated to show the ocean depth at each level of pressure.

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"Two miles down!" gasped Bud.

"We'll test for twice that depth and pressure," said Tom calmly.

As the needle of the dial crept slowly around to the four-mile mark, all the watchers gathered to stare in amazement.

"Does the sea actually go down that deep?" queried one of the mechanics.

"Sure-the Philippine Trench and Japan Trench are almost six and a half miles deep," Tom replied. "But that's a lot farther down than any dives we're apt to make in the seacopter."

When the test was finally completed, the tank was drained of water. Then Tom gave the rotor section a thorough inspection. Not a trace of damage was found!

Bud clapped the young inventor on the back. "Nice going, diver boy! That test was terrific! Looks as if your seacopter will really take us downstairs!"

"No congratulations yet," said Tom cautiously. "First, I want to have a closer look at those rotor blades."

To his dismay an X ray showed up a tiny internal crack in one of the blades.

Tom groaned. Somehow, he would have to find a new alloy for the job. Besides being extremely light and resisting corrosion by sea water, the metal would have to be even stronger and tougher than any metal yet developed!

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For the rest of the afternoon and half the night, Tom worked in the metallurgy laboratory. He tried out various mixtures of titanium, chromium, vanadium, nickel, tungsten, columbium, and other metals, preparing small batches of each alloy in an electric furnace.

But when he checked the samples on the physical testing machines, none of the alloys proved any stronger than the metal he had already used for the rotor blades.

Sunshine was pouring through the windows when Bud Barclay walked into the laboratory early the next morning. Tom was slumped over the workbench, where he had fallen asleep while peering at a slice of metal through a

microscope.

"Hey, wake up!" said Bud, shaking his friend gently. "It's nine a.m.-time to knock off work!"

Tom sat up, blinking the sleep from his eyes. "Knock off?" He grinned. "Are you crazy? I just dreamed up the formula I've been looking for!"

He dashed cold water over his face in an adjoining bathroom, then as Bud watched in amazement, proceeded to fuse a completely new mixture of metals in the electric furnace. When tested at various temperatures, the alloy far surpassed his wildest expectations.

"You look happy," said Bud. "Is it that good?"

"Good enough to lick that rotor-blade problem or I'm an oyster!" Tom chuckled. "Come on. Let's turn this formula over to Hank Sterling!"

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In the next twenty-four hours, a new set of blades was cast, machined, and installed. Then the rotor section of the seacopter was doused in the concrete tank again and another test run off under high speed and pressure. This time, when Tom checked the blades in the X-ray machine, there was no sign of any crack or flaw!

Bud clapped Tom on the back. "Congratulations, pal! Looks as if you've done it again!"

"Come home with me and have dinner tonight," Tom said. "I'll call up Mother and ask her to have something special to celebrate!"

The dinner included a thick, juicy steak, tender enough to melt in the mouth. Dessert was raspberry ice and chocolate cake. Sandy had invited Phyl Newton and the meal proved to be a gay one. The young people ate heartily.

"A wonderful dinner, Mother!" Tom smiled at her affectionately as he forked the last few crumbs of cake on his plate. "Too bad Dad wasn't home to enjoy all this. But I couldn't get him to leave the plant."

"Confidentially, pal," said Bud, grinning, "I think I put away enough food for two men!"

"What a pair you and Tom are!" Sandy chuckled, shaking her head in mock disapproval. "All you do is eat, sleep, and work!"

"Especially work," Phyl teased. "How long has it been, Sandy, since they took us out on a date?"

Sandy's blue eyes clouded. "I really can't re-

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member. They've just been too terribly busy to bother with us, I guess."

The boys realized they were being needled. "No kidding, girls," Tom spoke up, "we have been busy. The plant's working overtime on my diving seacopter, and then there's been all this trouble about the rocket from space-"

"Oh, don't apologize-it's quite all right," Phyl interrupted airily. "Tonight we're going out with a couple of smart engineers, anyhow."

"Meaning Tom and me?" teased Bud, thinking the girls were about to heckle them into a date.

But his smile faded fast as Sandy replied smugly, "No, two engineers who work for Munson Wickliffe. Very good-looking, too, from what I hear."

"You don't know them?" Tom burst out.

"Betty Kenwood asked us to go out with them on a triple date," Phyl explained quickly. "A friend of hers works at the Wickliffe lab in Thessaly." When both boys flushed, Sandy observed with a sparkle of mischief, "My, my! I do believe they're jealous, Phyl!"

"Have you girls made any plans yet about where you'll spend the evening?" Mrs. Swift asked, joining the conversation.

"Betty spoke about a dance at the Thessaly Yacht Club," Sandy replied.

"You may think I'm a silly old fuss-budget,

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dear," said Mrs. Swift, "but I'm terribly worried about that space rocket. If anything should happen, I'd like to know that all of us are near one another in Shopton. Would you mind entertaining your dates here at home just this once?" Sensing her mother's deep anxiety, Sandy and Phyl readily agreed. Soon after eight o'clock, Betty Kenwood and her date arrived, bringing with them the two other engineers. The group came into the living room, where the rest were waiting.

"This is Ferdinand Acton," Betty introduced one, "and this is Kelton Price."

"Please let's not be formal!" Acton smiled suavely, making a little bow. "Just make it Ferd and Kelt."

Acton was blond, thin, and anemic-looking. He was dressed in a plaid jacket, wine-red cummerbund, and white flannel trousers. His friend Kelt Price made a somewhat amusing contrast, being short and pudgy with a shock of thick black hair. Both men were in their late twenties.

"We figured you girls should feel right at home with a couple of technical chaps like us." Price beamed, staring at Phyl with undisguised admiration.

"By the way," said Acton, "is your brilliant brother going to join us for the evening?"

Tom coldly answered, "Thank you, but Bud and I have other things to attend to. Come on, Bud. Let's get back to the plant."

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The two boys stalked out of the house and climbed into Bud's red convertible.

"What a couple of creeps!" stormed Bud, as he slammed the car door and roared off down the gravel drive.

Tom grinned in the darkness. "Maybe Sandy and Phyl aren't feeling so happy right now, either. From the looks of their dates, I'd say they really booby-trapped themselves for the evening!"

At Swift Enterprises Tom and Bud found Mr. Swift scanning the sky through a giant telescope that protruded through the flat-roofed top of the main building.

"Any news, Dad?" Tom asked.

"Nothing so far, son. No sign of a rocket or a mother ship. But I have a feeling something may show up mighty soon!"

Meanwhile, Betty Kenwood and her date had gone off to the Thessaly Yacht Club, leaving Sandy and Phyl alone with Ferd and Kelt. The young men had seemed happy about staying at the house when Sfenidy had requested this. Mrs. Swift had retired to an upstairs sitting room to sew and watch TV.

"Remarkable chap, your brother," commented Ferd Acton as he puffed on a foreign cigarette in a long, carved ivory holder.

"Do you really think so?" asked Sandy coolly.

"Yes, indeed. I've always been a great admirer of Tom Swift Jr.-he's produced so many amazing

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inventions. I dare say he's busy on some new project right now, isn't he?"

The inflection in his voice clearly indicated he was prying for secret information.

"I suppose so." Sandy smiled. "He usually is."

Not discouraged by her noncommittal response, Kelt Price asked bluntly,

"What's the wonder boy working on these days?"

Sandy and Phyl glanced at each other. Sandy managed to answer the question without giving a direct reply. But the two Wickliffe engineers soon resumed their probing.

Ferd Acton's next question took Sandy by surprise. "Is Tom improving his jetmarine to do some underwater searching?"

CHAPTER 7

AN ALERT

SANDY DID NOT REPLY to Ferd Acton's question at once. Had he heard rumors about Tom's secret seacopter and his plans to join George Braun and Ham Teller in searching for buried lands beneath the ocean?

"You'll have to ask my brother about that," she said sweetly. "I don't keep up with all the details of his work. But I am curious as to why you asked about that particular invention."

"Oh, I don't know." The thin, blond engineer blew out a cloud of smoke. "An air-pilot friend of mine mentioned that he saw the Sky Queen hovering out over the Atlantic the other day. I thought that perhaps Tom might be testing out some underwater device."

Though made in an offhanded way, the remark probably was a new attempt to wheedle informa-

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tion, Sandy realized. She was sure of it when Ferd Acton stared at her with

one eyebrow raised quizzically, as if inviting her to tell just what the Flying Lab was doing out over the ocean.

But Sandy ignored the hint. Instead, she decided to do a little probing on her own-in a subtle, roundabout way. "Have you been working for Munson Wickliffe very long?" she inquired.

"About four years," Acton replied. "Charming fellow! Before that I was in Europe."

"In Europe? How interesting!"

"I received a good deal of my technical education over there, you see. I studied at the Sorbonne in Paris and got my master's degree at the University of Gottingen in Germany."

"Oh, that sounds wonderful!" Sandy exclaimed. "Living abroad must be exciting."

"Ah, yes, it is indeed. After all, Europe is the home of culture"-Acton waved his cigarette holder gracefully-"it's a place where art and beauty are truly appreciated. I find America so crude by comparison."

"But you do enjoy your work at the Wickliffe lab, don't you?" Sandy pursued.

"Oh, quite-in a different way. It offers a challenge to my scientific talents."

"I'm sure it must." Sandy's face assumed an eager, fascinated look. "Of course it's probably way over my head, but what exactly does your work consist of?"

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"Oh, we carry on research in many different fields," said Ferd Acton vaguely.

"Sure, we dabble in everything," boasted Kelt Price. "Electronics, plastics, computers, atomic physics-what have you."

"Then I suppose you've done some underwater research yourselves," said Sandy innocently.

This time, it was Ferd Acton's turn to smile. "Naturally some of our work may find application in the submarine field. Then again it may be connected with aircraft design-or it may be strictly earthbound."

From his reply, Sandy had the feeling that Ferd Acton was secretly making fun of her attempts to gain information. She felt annoyed but knew it would do no good to lose her temper if she hoped to learn anything from him.

Phyl seemed to guess what her friend was trying to do. In an effort to help, she inquired, "Have you men ever been down on a submarine dive? It must be a terrific thrill!"

Kelt Price chuckled. "Maybe so, but I prefer diving in a swimming pool.

Always seems a lot safer-that is, if you don't crack your head on the bottom!" He guffawed loudly at his own remark.

Presently Sandy excused herself and went to the kitchen to fix plates of ice cream and cake for her guests. Phyl followed to help serve.

"What an evening!" whispered Sandy.

Phyl nodded gloomily. "I thought it might be

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fun to tease Tom and Bud by having blind dates. But I guess the laugh's on us."

Sandy took the ice cream from the refrigerator and scooped out helpings onto the plates which Phyl handed to her.

"It's funny," she went on in a low voice, "the way Ferd and Kelt keep trying to quiz us about Tom's work."

"It certainly is," said Phyl. "And yet they won't tell us one thing about what projects the Wickliffe lab is working on."

AN ALERT

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Sandra Swift frowned thoughtfully as she arranged the ice-cream plates on a tray. "I don't know whether you knew it, Phyl, but as far as Tom and Dad know, Munson Wickliffe was the last person in their office before the space dictionary disappeared. That's when all the trouble about the rocket started."

Phyl's eyes widened. "Goodness, do you suppose that has anything to do with Ferd and Kelt being here tonight?"

"I wonder. And also, they may have figured that

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having dates with us would be an easy way to pick up some inside information on Swift Enterprises. Anyhow," added Sandy, "I'm certainly going to give Tom a full report!"

When the girls returned to the living room, Sandy asked Acton if he had any plans to go back to Europe on vacation.

"No," he replied, "but Kelt and I may be taking a trip together soon."

"To a land of romance and adventure!" Kelt added. "Not that I'm the type who goes in for this sun-helmet sort of thing," he added, laughing.

"Will your trip be for pleasure or business?" inquired Sandy casually.

"Both," replied Acton.

He did not offer to explain what the business might be. He did mention that a river at the spot he was going to was as big as twenty Mississippis and wound through miles of steaming jungles. He described its vast wealth in gold, diamonds, rubber, oil, manganese, and other minerals.

Acton told about head-hunters who inhabit its banks, about fabulous orchids and strange animals that lurk deep in its forests.

"What a country!" Phyl sighed dreamily. "Sounds like a movie script come true!"

"Wait'll you hear some of the more gory details." Price chuckled. "Tell her about the piranhas, Ferd."

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"Ah, yes-the piranhas." Acton grinned at the girls slyly. "Most amazing little creatures!"

"What are they?" asked Sandy.

"Fish-cannibal fish-with bulldog snouts and razor-sharp teeth. Less than a foot long, but they're probably the most vicious and deadly of all living creatures. They'll slash at anything that moves. And the scent of blood drives them into a frenzy!"

As the girls paled slightly, Acton went on, "There's even a report about an American scientist who went to sleep in a canoe and let his hand trail in the water. When he pulled it out, all he had left below the wrist were bones."

"Ugh! How horrible!" Phyl shuddered.

"Maybe you'd like to hear about some of the twenty-foot snakes that squeeze-"

His words were cut short as a shrill whine split the air, increasing to a loud, wailing crescendo.

"It's the siren at Swift Enterprises!" Sandy gasped. "Something must be wrong!"

Accompanied by Acton and Price, the girls rushed outside.

"Look!" cried Phyl, pointing skyward.

Through the night sky, from the northwest, streaked a glowing red object. It was arrowing straight toward Shopton!

CHAPTER 8

ROCKET'S TRAIL

SANDY AND PHYL stood rooted to the spot as the fiery object raced through the sky toward Shopton. But Acton and Price, after a quick glance, made a dash for their convertible, which was parked at one side of the drive.

Gunning the engine, Ferd Acton sped off into the darkness with a spatter of gravel.

Sandy and Phyl paid little attention to their departing guests. Wide-eyed with alarm, they stared at the streaking red menace in the sky. But to their amazement its speed seemed to have slowed.

Mrs. Swift had raced outside and now clung to the two girls. All three were trembling. Second by second the rocket drew closer.

"Do you suppose it's the one from outer space that Tom was expecting?"

Phyl asked shakily.

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"It must be!" Mrs. Swift answered. "If only we could tell where it will land, we might-"

She stopped, thunderstruck. The rocket had suddenly veered and was now heading away from Shopton toward the southeast!

"Oh, thank goodness-thank goodness!" Mrs. Swift murmured softly.

Within a minute the red missile had disappeared from view.

"It seems like a miracle!" Sandy nestled against her mother. "I wonder if Dad and Tom did something to keep the rocket from landing on Shop-ton?"

"Let's check and make sure that they're all right," Phyl suggested.

Hurrying inside, Sandy phoned Swift Enterprises. Tom answered. "Don't worry, Sis, everything's under control," he assured her. "What's that? No, we can't take any credit for saving Shop-ton. In fact, we're as mystified as you are about the rocket veering away. But remember that message we picked up about 'Continue course'?"

"Yes. You think that's the answer?"

"It could have meant to continue course beyond Shopton to another landing place."

As Tom hung up, Bud came rushing into the lab. He was waving several large photographic prints.

"Here are pictures of the rocket!" he exclaimed. "The department got some beauties."

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Tom and Mr. Swift examined the prints eagerly. The photos showed a strange-looking rocket, far different from any missile designed on earth. Cigar-shaped, it had a series of round cuplike fins, running from small ones at the nose to giant ones at the tail.

"Amazing!" murmured Mr. Swift. "I've never seen fins like that on any projectile, foreign or American. They're worth careful study."

"Then you think it's the rocket from your space friends?" Bud asked.

"I'd say that there's no doubt about it. What's your opinion, son?"

"I agree, Dad," Tom replied. "No doubt it contains those specimens of planet life we've been expecting."

"Then why did the rocket keep going?" Bud asked. "I thought it was being sent right here to you."

Mr. Swift frowned, mentioning the "Continue course" message. "Another move by our invisible enemy," he said. "The same person who kept jamming our signals and sent us that fake message about a five-day delay."

"There's another possibility," Tom spoke up. "Our space friends may have decided to have their rocket continue on toward the Atlantic."

Bud Barclay stared at his friend in surprise. "Why?"

"To cool it off," Tom explained. "They may

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have figured that was the only way to keep the specimens inside alive until we find out how to open it without injuring the contents."

The phone rang and Tom scooped it off the hook.

"George Billing, Tom," came the voice over the wire. "I contacted the Coast

Guard and had this flash."

"What's the word?"

"The mystery meteor was sighted heading out to sea at 9:27! Here's the estimated course, speed, and position-"

Billing rattled off a set of figures. Tom jotted them down on his desk pad, then ripped off the sheet and passed it to his father and Bud.

"Okay. Thanks, George. Keep contacting all ships, planes, air bases, weather stations, or any other observers who might be able to give us a report. This could be an all-night job."

Billing chuckled wryly. "You're telling me!"

"We'll come over to communications and help you," Tom said, then hung up.

When Tom and his father arrived at the radi-typer room, they began making hurried phone calls. Each one contacted numerous individuals, government agencies, and points along the coast, hoping to garner further information.

Meanwhile, Bud switched on the radi typer and beamed it in a southeasterly direction. Instantly the device began clicking at machine-gun speed,

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reeling out a steady stream of messages on tape.

"Hey! A report on the rocket's coming in!" he exclaimed suddenly.

Tom and Mr. Swift dashed to Bud's side. The message was from a coastwise oil tanker, the Petrol Queen, and told of sighting a strange, meteorlike object in the sky. This was followed some minutes later by a similar report from a Greek freighter, the Pantheon, bound for Norfolk, Virginia. Both gave latitude and longitude at time of sighting.

Tom plotted all three positions on a huge wall map. The course of the rocket immediately became clear.

"Heading for the South Atlantic, all right," he commented.

"Trouble is," said Mr. Swift, "there's no telling when or where the rocket may strike the water."

"I'd better alert Kane!" Tom cried.

Stepping over to the giant control board of the Swift Enterprises private TV network, he flicked on the videophone, then pushed a button to signal their Key West telecaster. A moment later Kane's face settled into focus on the screen.

"What's up, Tom?"

Quickly the young inventor briefed him on the space rocket, then said, "Get in touch with all your contacts in the Atlantic and Caribbean area. Pick up any information you can on the rocket or where it's heading. And channel the news back to us pronto!"

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"Sure thing. I'll hop to it right away."

"And, Kane, here's another thing," said Tom. "Refer to the rocket only as a 'meteor' or 'fireball.' If possible, we want to keep its true nature secret for the time

being."

"I get you, skipper. Wilco!"

As the evening wore on, a steady stream of phone calls, radio flashes, and videophone reports began pouring in. Some were eyewitness accounts of the rocket from planes and ships at sea. Others were second- or third-hand versions relayed by shore stations and ham operators. All indicated that the mysterious sky traveler was continuing on its southeasterly course.

Then, shortly after midnight, the reports dwindled and nothing more was heard. Bud finally went home to bed, but Tom and his father remained at the plant. In an anteroom off Tom's laboratory, where there were two cots, they caught a little sleep. But no further messages came during the night.

"It's funny no one has reported where the rocket landed," Mr. Swift mused as he and Tom tackled a hearty breakfast served by Chow. They were eating close to their private TV set.

Suddenly the red signal light of the TV switchboard flashed on. "I'll get it!" exclaimed Tom, jumping up from his chair.

He switched on the videophone and Kane's face appeared on the screen.

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"Any news?" Tom asked eagerly.

"The payoff. A plane from Natal, Brazil, landed at Barbados early this morning. The pilot reports that he saw a glowing red object plunge into the sea somewhere off the Brazilian coast."

"Did he spot the position?"

"He didn't even take a bearing, so all I can give you is a guesswork range of latitude and longitude. I've marked the possible area on this chart." Kane held it up for Tom to see, adding, "Don't take too much stock in my figuring, though. It could be way off."

Tom copied down the information, thanked Kane, and signed off. The elder Swift watched with interest as his son plotted the area on their own wall map.

"If the rocket did come down here, that would agree pretty well with earlier reports on its course," said Tom hopefully.

Mr. Swift nodded. "You're right, son. But I'm afraid that still leaves a vast area in which to search for it."

As the two sat thinking, the telephone rang. Mr. Swift picked it up. The caller was Tom's mother.

"Oh, it's you, Mary. Good morning! . . . How's that?"

The scientist's face was puzzled as he hung up a few minutes later.

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"What's the matter, Dad? Something wrong?" Tom asked, worried.

"Frankly, I can't imagine, son. It's about our old housekeeper, Mrs. Baggert."

Tom's eyes lit up fondly as he recalled how good she had been to him as a little boy before she retired. "Mrs. Baggert's all right, isn't she?"

"I trust so. She just called the house a few minutes ago, saying she has a very important message for me. Mrs. Baggert isn't the kind to exaggerate. I think we'd better go see her at once!"

CHAPTER 9

A CLUE FROM THE PAST

LEAVING WORD with George Billing about their destination, Tom and his father hurried to a company jeep parked outside the communications building. As they drove off through the gates, Mr. Swift remarked:

"We'll stop off home and pick up Mother and Sandy. They're both anxious to call on Mrs. Bag-gert and learn what's on her mind."

After Mrs. Swift and Sandy were seated in the car and Tom was driving off, Sandy said, "I want to tell you about our dates last evening. I think you'll be interested in something Phyl and I found out."

She went on to describe the conversation, mimicking the way Acton and Price had talked while probing for information about Tom's work, the direct question Acton had asked about the jet-marine, and the young men's coming trip.

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"They didn't say where it was, but from some of the descriptions, I believe it might be South America, around the Amazon."

Mr. Swift was deeply disturbed. "South America and underwater searching!" he exclaimed. "By George, it almost sounds as if they had advance knowledge of just where the rocket would land, Tom!"

"It sure does, Dad. We'll have to find out!"

A few minutes later the car drew up before the pleasant, vine-covered cottage where Mrs. Baggert, now past eighty, but still keen of mind, lived with an elderly cousin. The retired housekeeper opened the front door in response to their ring. She greeted her visitors warmly and ushered them into the parlor.

"I declare, Sandy, you're growing to look more like Mary Nestor every day!"

As usual, the old lady was referring to Mrs. Swift by her maiden name. "And you, Tom-you always did take after your pa!"

After an exchange of pleasantries, Mr. Swift said, "Now, Mrs. Baggert, what's this important news about?"

"Well, you know Mary doesn't talk much about your affairs, but she did tell me that some valuable scientific data of yours has recently disappeared," the old lady replied. "And I believe I know who might be back of it. Munson Wickliffe!"

Tom and his father glanced at each other in

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amazement. "What makes you think that?" Mr. Swift asked quickly.

"Cousin Alice gave me the idea. Wait a minute, and I'll ask her to come in and tell you what she told me. She's out in the garden."

Getting up from her chair, Mrs. Baggert called to her cousin. Alice Reems, a

gray-haired, little woman with a shrewd but kindly face, came into the room and greeted the Swifts.

"Alice, tell the folks what you said about Mun-son Wickliffe."

Cousin Alice settled into a chair. "Well, as you know, I used to live in California," she said. "Years ago there was a young engineer out there named Munson Wickliffe. This man was engaged in scientific research. He was very successful but left town quite suddenly. After he went," the old lady continued, "there were all sorts of stories about him- that he had made his money by stealing other people's ideas and putting over crooked deals."

"Oh!" cried all the Swifts and Tom asked, "What became of him?"

"I don't know," Miss Reems replied. "But the other day I read about a man by that same name in the paper here. When I mentioned the matter to Cousin Jane, she thought he might be connected with your trouble at Enterprises."

"I'm going to call Harlan Ames right away," said Tom, jumping up.

When he reached the security officer on the

A CLUE FROM THE PAST 75

phone, Tom told him Miss Reems's story. Ames was interested at once.

"Tom, that ties in with some information Ted Elheimer gave me." Ted Elheimer was the Swifts' West Coast telecaster. "I've been checking Wickliffe's background since his visit to your office, just before you missed the space dictionary. Wait!"

Ames interrupted himself. "Another message is coming through now from Elheimer. Call you back at Mrs. Baggert's."

While the Swifts waited tensely for Ames's report, Miss Reems told them more about tales of Munson Wickliffe's shady activities in California. "You'll see," she concluded. "That man's not to be trusted!"

Just then the phone rang and Tom hurried to answer it. When he came back, there was a worried expression on his face. "Ames says there's no doubt but that this Munson Wickliffe is the same one Cousin Alice knew of in California. That certainly makes him a suspect."

Mr. Swift was grave. "I agree. But we must move cautiously. I think, Tom, the best thing would be for you to phone Wickliffe and try to make an appointment with him. He might become suspicious if Ames or any other of the security men should go there."

"All right, Dad," Tom replied. "I think I'd better phone from home."

After chatting a few minutes longer with the two old ladies, the Swifts took their departure. As

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soon as the family arrived home, Tom placed a call to the Wickliffe lab in Thessaly and asked for the owner.

"I'm sorry, sir," the switchboard operator replied. "Mr. Wickliffe is not here."

"Where can I get in touch with him?"

"I can't say. He left town very suddenly and gave no forwarding address."

Tom's face was grim as he hung up and reported the conversation to the others.

"Let me try calling Ferd Acton and Kelt Price," suggested Sandy, eager to be of help.

"Good idea, Sis."

She took the phone and dialed the Thessaly plant. But her baffled expression soon showed that she too had had no luck.

"They've gone!" she exclaimed, replacing the phone. "No forwarding address and no idea when they'll be back."

"Dad, this proves it!" cried Tom. "Wickliffe and his stooges are the ones who've been fouling us up all along!"

Mr. Swift's face showed dismay, but his voice remained calm. "Let's not jump to conclusions, son. Just because they've gone away somewhere doesn't mean that they're guilty of any wrongdoing."

"Then why should they take off as soon as the rocket landed?"

"Look at it this way," said Mr. Swift. "That

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space rocket could prove tremendously valuable. If the truth leaks out, many treasure hunters may try to recover it. Wickliffe has the same right as anyone else."

Tom shook his head stubbornly. "In my opinion, this whole thing was planned from the start. Don't forget that message, 'Continue course.' We may have missed part of it-probably the most important part. I believe the sender gave our space friends a new location for the rocket to land!"

The elder scientist admitted that this might well be the case.

"One thing's certain," Tom said. "It's going to be a race between Wickliffe and us to find that rocket and I want to get there first! I'll go in the seacopter!"

After a hasty lunch the two inventors drove back to the plant.

As they reached the office, Mr. Swift remarked, "Tom, since no more reports have come in about where the rocket landed, I'd suggest that you make a preliminary search for it in a hydroplane. After you locate it, you can return there in your sea-copter to bring it up."

"But the rocket won't be visible from the air, Dad," Tom objected with a puzzled look.

"True enough. But I've been working on an underwater metal detector to tell how valuable old wrecks are-whether they contain cargoes of gold or other precious metals, etc."

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"Great, Dad!"

Mr. Swift smiled. "It should enable you to spot the rocket. Come to my lab and I'll explain it."

In the fabulously equipped laboratory, Mr. Swift pulled out a diagram from a

workbench drawer.

"Basically the invention works on a very simple principle," the scientist said.

"The transmitter will shoot a search beam down into the sea. This will be an ultrahigh-frequency beam capable of behaving under water the same way radar beams do in the air." He smiled. "Now, pupil, tell me what will happen when the beam strikes a solid object."

Tom laughed. "The beam will be reflected back at a slightly different frequency."

"Right! And the new frequency will depend on the molecular structure of the stuff which the beam happens to be hitting."

"I get it!" exclaimed Tom. "When the beam bounces back, you simply measure the change in frequency. And that tells you what kind of metal you've found."

"Exactly."

"Dad, your idea's terrific! It'll make our search twice as easy! But how soon will your detector be ready?"

"The electronics department has been working on a pilot model for the past two weeks. It should be completed by tomorrow morning at the latest."

A CLUE FROM THE PAST 79

"We'll rig it up and take off!"

"I suggest that you also take along your Damon-scope," added the elder scientist. "That will tell you if the contents of the rocket is radioactive."

Tom had invented the Damonscope just before embarking on his first expedition in the Flying Lab. A vast improvement on the Geiger counter, it had enabled Tom to discover a fabulous lode of radioactive ore in South America. It worked by recording ultraviolet fluorescence on a moving strip of film.

Later that afternoon, Tom decided he ought to get in touch with his two oceanographer friends now in Washington and tell them the seacopter would be ready soon for their investigation of the Atlantic Ridge. Tom felt that as soon as the rocket business was settled, the other expedition could start. Ham Teller answered the phone.

"George isn't here right now," he said, "but we've both been waiting impatiently to hear from you. How soon will your seacopter be ready for action?"

"Very soon now, I hope. So far it has passed all its tests."

"I knew it would, Tom. When that brain of yours tackles a project, it won't give up! Seriously, I'm delighted to hear the news and George will be, too."

"Something else I want to mention," went on Tom. "I have a hunch about where we should

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start searching for that sunken city." He went on to explain his theory about the underwater peaks which he had already discussed with Bud.

Teller was strongly impressed. "Tom, that's an exciting idea! And the

amazing thing is, it ties in with a theory George and I have developed. Ours is based on an old Peruvian Indian legend we ran across that-well, I won't go into it now, but I'll tell you all about it as soon as we get together."

"Swell, Ham. In the meantime, start getting your gear together. I'll notify you and George as soon as I'm ready for the trip. There's just one job I have to do first."

"Well, make it snappy," Ham urged.

"Do my best," Tom promised. "Good-by."

To Tom's delight, the pilot model of Mr. Swift's metal detector was ready before quitting time at the plant that same afternoon. Tom hurried over to the electronics department to examine the detector.

"It's the greatest yet, Dad!" he said. The elder inventor merely smiled.

On the way back to his own lab, Tom met Bud. "Hey, fly boy!" he called.

"How'd you like to hitch a ride on a flight down to South America?"

"You've got yourself a pilot, chum!" Bud grinned. "When do we take off?"

"In less than twelve hours, so hit the sack early tonight!"

Tom also alerted Slim Davis and a three-man

A CLUE FROM THE PAST 81

crew. Before daybreak the next morning, the group took off in a big four-jet amphibian flying boat. On Tom's orders, Bud kept the radio tuned to Dilling's office at Swift Enterprises. But George had no fresh reports to relay about the landing of the rocket.

"What's the area we're going to survey?" Slim asked, as Tom switched the ship to automatic pilot for a while.

Tom pulled a chart from his pocket and showed him the possible landing area which Kane had transmitted over the videophone.

"Of course we can't be sure this is accurate," he said, "but it does agree with the rocket's line of flight. Personally, I think it's a safe bet it came down somewhere along the Amazonian continental shelf. But we'll make tests in the whole area."

Reaching the basin of the Amazon, they flew south over the vast island of Marajo. The northern half of the island, on the Amazon side, was dotted with ranches, while the rest, reaching to the Para River, was a dense green jungle. The air below them was full of birds-blue and white herons, snowy egrets, and scarlet ibis flying in V-formation, while fleets of giant jabiru storks soared high above all the rest.

"We'll cruise out to sea for a hundred miles," Tom said, turning the craft.

"Then, Slim, will you take over and start weaving back and forth across the two-hundred-mile mouth of the Amazon."

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Mr. Swift's metal detector had been mounted in the bow of the seaplane, with the transmitter dangling at the end of a long tube down into the water. The

Damonscope had been installed in an opening just back of the detector, its camera lens pointing seaward.

Reaching the hundred-mile point, Slim took the controls as Tom and Bud went to do the experimenting. Tom pushed a button and the Damon-scope began to whirl softly. Then he switched on the metal detector and carefully adjusted several tuning knobs as Bud watched with keen interest.

A few seconds later the detector gave off a faint clicking noise. At the same time, the indicator needle flickered upward into the metal-detecting-frequency range.

"Listen to that response!" exclaimed Bud. "Maybe we've found the rocket!" Tom shook his head, smiling at his friend's excitement. "Sorry to disappoint you, but a concentrated mass of metal like a rocket would set off a much louder signal. What we're getting right now is mostly background noise."

"What's causing it?" Bud asked.

"Manganese ore, most likely. The whole Amazon basin is loaded with the stuff."

The detector response continued off and on during most of the search.

Several times Tom checked the film in the Damonscope, but found no trace of exposure to fluorescence as would have hap-

A CLUE FROM THE PAST 83

pened if they had passed over radioactive material.

In disappointment, the searchers went from deep to shallow water without a sign of the rocket. Finally, as the hydroplane veered close to Marajo again, they saw several fishing boats skimming along the Para River.

"Why not ask these fellows if they saw the rocket land?" Bud suggested.

"These natives probably haven't been contacted by the newsmen."

"Good idea," Tom said. "Take 'er down, Slim!"

As the big seaplane taxied to a halt on the Para River, a sailboat and two dugout canoes approached, manned by curious natives.

Tom and his friends opened the seaplane's hatch and poked out their heads.

After greeting the natives, they questioned them, but received only puzzled grins and a chatter of Brazilian Portuguese in reply.

"Looks like they don't savvy English," grumbled Red Jones, one of the crewmen.

"You speak Spanish a little, don't you, Tom?" Slim asked the young inventor.

"Why not try that -Portuguese and Spanish are a lot alike, aren't they?"

"Maybe you've got something there, Slim," Tom agreed. Turning back to the fishermen, he asked, "Un encendido pdjaro grande-lo vio ca-yendo del cielo en el agua?"

Instantly one of the natives caught on. "Sim, sim, Senhor!" he cried, and pointed to sea.

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"What did you say to him, Tom?" Bud asked.

"I asked him if he'd seen a big fiery bird fall into the sea. From the way he pointed, it looks as if we're on the right track. Tomorrow we continue the search." The sun was low in the sky, but Bud suggested a short trip into the jungle.

"There'll be daylight for a while," he said. "I stowed a couple of canoes in the cargo compartment, a spear gun and- How about it, Tom?"

A CLUE FROM THE PAST

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"Okay. Anybody else want to go?" Slim and Jones at once spoke up. The plane was flown to the mouth of a jungle side stream and the two canoes were launched. With warnings from the men on board to watch out for caymans and shark, Tom and Bud set out in the leading canoe, while Davis and Red Jones followed in the other.

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It was a strange and eerie experience, paddling up the narrow igarape, or native canoe path. The visitors traveled through a greenish gloom, dappled only by occasional patches of sunlight that filtered through the foliage of the tall trees lining either bank.

The tree trunks were encircled by creepers and flowering vines, while monkeys swung through the branches, chattering shrilly. Huge butterflies flitted among the jungle blooms, and gorgeous-colored parrots and macaws screamed harshly at the canoeists. Once they saw a boa constrictor slithering among the foliage.

"Boy, could I kick myself for not bringing a camera!" remarked Bud. "The light's not so good, but with fast film-"

A startled scream caused the two boys to jerk their heads around. The canoe behind them had tipped over, and Davis and Jones were struggling wildly in the water.

Suddenly Tom gasped with horror and pointed at a tall fin knifing straight toward the two floundering men.

"Bud, here comes a man-eating shark!"

CHAPTER 10

DEADLY WATERS

WIELDING their paddles frantically, Tom and Bud spun the canoe around and sent it speeding back to rescue Slim and Red.

"Look out for the shark!" Tom yelled at them.

Warned by his shouts, the men spotted the great fish and swam desperately out of range. But the man-killer swerved and swam toward them. Tom intercepted the shark, but the fish rammed the canoe, almost upsetting it.

"Keep him busy, Tom, while I load the spear gun!" Bud cried.

Crouching in the bow, Tom swung his paddle in hard, chopping blows at the man-eater. Each time that he did, the shark's jagged rows of teeth snapped back at the flailing paddle.

Suddenly Tom heard a swoosh! As if by magic,

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a long, slender metal spear quivered into the shark's side. Bud had fired the spear gun, charged with a CO2 cartridge, and scored a direct hit!

Enraged by pain, the great fish plunged downward for a moment, only to reappear near the surface, lashing its tail in fury. The blow caught the frail canoe squarely and it rocked precariously.

By now, Bud had had time to reload the spear gun and fired it. Another barb found its mark in the shark's side! Despite the two hits, the killer showed no sign of weakening. Abruptly it veered away from the canoe, staining the water with clouds of red from its wounds.

Slim Davis seized the opportunity to swim alongside the craft. "Give me a hand!" he panted.

Dropping his paddle, Tom helped him aboard. The canoe teetered perilously as Bud sought to steady it.

Meanwhile, Red Jones had been swimming for shore, but had become entangled in the slimy, trailing water weeds. Now the shark was heading straight toward him! This time, there was no hope of stopping the attack except with the spear gun.

"Nail that shark again, Bud!" Tom urged in a voice frantic with anxiety.

Bud aimed and pulled the trigger. It was another hit! The spear lodged in the shark's back, directly behind its head. For a few seconds the monster lashed about wildly, then rolled over and floated with its white belly upward.

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"Nice shooting, pal-he's done for!" Tom cheered the marksman.

But relief was short-lived as Slim Davis suddenly pointed to a flurry of silver in the water alongside the boat.

"Piranha!" he exclaimed. "Dozens of them!"

The cannibal fish had picked up the trail of the shark's blood and were now heading in for a feast. Unless Red Jones could be pulled out of the weeds rapidly, he too might become their victim!

Seizing their paddles, Tom and Bud sent the canoe flying to the rescue.

There was not a second to spare! As the piranha fastened greedily on the floating shark, Tom whipped out a knife and slashed Red Jones free from the weeds. A moment later the frightened crewman was safe aboard the canoe.

"Wow, that's shaving it too close for comfort!" gasped Red weakly. "Thanks for saving me!"

"Look at those babies go to town!" muttered Bud, staring in fascination at the

piranha.

Already their feast was half finished. The water was churned to a bloody froth as they fought savagely among themselves for choice morsels.

"Let's get back to the plane pronto," Slim suggested. "I've had enough jungle exploring for one day!"

"Second the motion!" put in Red, who was shivering with fright and exhaustion.

They looked for the second canoe but could not

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find it, so they paddled off. Darkness had fallen by the time they arrived at the seaplane. The crewmen who had stayed behind on watch looked questioningly at the bedraggled group. As they listened to the explanation of what had happened, their eyes bulged. Both declared they would stay on board the plane.

"We spotted a submarine while you were gone," reported one of the men. "Its periscope passed less than fifty yards from here."

"A sub!" Tom whistled. "Which way was it heading?"

"Out to sea. But it dived right after we saw it."

Tom and Bud exchanged glances. Was there any significance to a submarine being in the area?

That night, as the seaplane rode at anchor in the calm waters, Tom had difficulty sleeping, his mind active with his problems. Stripped to his shorts, he turned and tossed on his bunk in the hot, sticky atmosphere of the tropic night. His brain refused to relax. Again and again he puzzled over the strange behavior of Munson Wickliffe. The scientist was certainly an enigma. And what about the sub which the crewmen had sighted? Could it belong to Wickliffe and was he using it to hunt for the fallen rocket?

If so, time was crucial! Tom knew that he would have to press his own search harder than ever, or he might lose the race to recover the rocket with its valuable planet specimens!

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To quiet his thoughts, Tom slid down from his bunk and made his way forward into the flight cabin. All was silent, except for the occasional scream of a night bird. Outside, the jungled shores of the inlet were cloaked in purple darkness.

As Tom gazed out over the water, his ears picked up a strange sound. For a moment he could not identify it, then realized it was the soft swish of canoe paddles.

His eyes probed the darkness. The moon was partly clouded over, shedding only a faint, ghostly radiance. Finally the young inventor discerned the dim outline of a native canoe with several occupants. It was heading straight toward the plane.

Were the occupants friends or foe?

Tom waited until they were almost alongside, then he stuck his head out the open window and called down:

"Boat ahoy! Who's there?"

At the same time, he flicked on a spotlight and beamed it at the canoe. Its yellow glare revealed four passengers—two white men and two Indians. All four instantly hid their faces and began paddling off at top speed.

Tom had caught only a quick glimpse of their features, but he was sure the two white men were Ferd Acton and Kelt Price! Hurrying aft to the bunk compartment, he shook Bud to awaken him.

"What's the matter?" Bud muttered, raising himself sleepily on one elbow.

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"Hit the deck, Bud. We may be in for trouble!" Tom hissed in his ear and explained about the stealthy approach of the four canoeists.

Bud jumped up and the two boys mounted guard in the flight cabin, each keeping a watch on one side of the plane. Hours later, as the sky paled with the flush of dawn, they relaxed. There had been no sign of a return visit.

"Of all the low-down tricks!" Bud grumbled, stretching himself wearily. "They cheat us out of a good night's sleep and then don't even show up!"

"That's better than getting blown up in our bunks, isn't it?" Tom grinned.

"Anyhow, we'll catch up on our sleep during the flight back home."

"When'll that be?"

"Soon as the crew's awake. I've made up my mind that the metal detector didn't locate the rocket because it's covered with something we either don't have on earth or is detectorproof. So I think we'd better start our search with the seacopter as soon as possible."

"I'm with you."

Later that morning, as the plane winged northward across the Caribbean, Tom realized that he still had not tested the seacopter in completely assembled form. Contacting Shopton by radio, he spoke to George Billing:

"Tell Art Wiltessa to ferry all three sections of my diving seacopter to Fearing Island. I want the

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whole thing assembled and ready for a test cruise first thing tomorrow morning."

"I'll pass the word to him right away."

Fearing Island was the rocket base of Swift Enterprises. A thumb-shaped, three-mile stretch of sand dunes and scrubgrass, it was located off the Atlantic Coast within easy flight from Shopton. Here Tom had developed and tested his rocket ship, the Star Spear, as well as other rocket craft used in constructing his space-wheel satellite outside the earth.

It was nearing sundown when the big seaplane landed and moored at one of

the south docks of the island. A paunchy, bowlegged figure, with a shiny bald pate and a loud red and yellow cowboy shirt, came ambling out on the dock to meet them as Tom and the others disembarked.

"Chow, you old spud peeler!" Tom greeted him. "What are you doing here?"

"Wai, when I heard you was fixin' to go sashay in' down under the ocean, I figured you might be needin' a sea cook fer the trip."

"You mean you want to go with us?" Tom asked in surprise. "It may be dangerous."

"Brand my prairie periscopes, what difference •does that make? You're bound to get hungry. That's what counts." Chow grinned. "Fact is, I been experimentin' on some special vittles jest special fer you to eat down at the bottom o' the ocean."

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"Oh, no!" Bud groaned. "Like boiled squid and fried sea serpent, I suppose?"

"Tain't neither one o' them," Chow retorted. "I figured out four brand-new recipes an' every one's a whang-blazer!" He looked pleadingly at the young inventor. "What do you say, Tom? How about takin' ole Chow along jest to feed you?"

Tom, about to refuse, relented at the wistful look in the cook's eyes. "Okay, you can come." He winked. "But just remember-if you poison us, you'll never see dry land again!"

Chow gave a bloodcurdling, "Yippee!"

CHAPTER 1 1

THE OCEAN ARROW

THAT NIGHT Tom, Bud, and Chow slept in the Swifts' cottage on Fearing Island. At daybreak they rolled out of bed, dressed, and ate a hearty breakfast.

"All set for our shakedown cruise?" Tom asked the cook.

"You sure couldn't leave ole Chow home," he said, grinning, and showed them a picnic hamper packed with food.

"What's that-some of your deep-sea specials?" Bud giped.

"No. I'm savin' my special recipes for the real trip."

In a jeep the three rode to the airfield. Mechanics were swarming over the diving seacopter, making final adjustments before take-off. Nearby was the Sky Queen which would accompany the smaller craft.

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96 DIVING SEACOPTER

"I feel that we won't need any help this time, though," said Tom confidently, as Bud braked the jeep to a halt.

A few moments later Art Wiltessa reported that the mechanics were finished with their check. "First flying fish ever powered by an atomic reactor." He chuckled. "Good luck, fellows!"

One by one, Tom, Bud, and Chow clambered onto the top of Cabin A and

lowered themselves down through the hatch. Bud locked the hatch lid closed and Tom took his place at the controls. Outside, the mechanics and other onlookers waved good luck to them.

"This is it!" warned Tom as he flicked on the reactor and opened the throttle. An instant later the rotors whirled into action. Slowly Tom hauled back on the control wheel.

"We're air-borne!" shouted Bud as the seacop-ter rose smoothly off the ground.

In a matter of seconds the airfield lay far below them. Soon the whole island was a mere brownish patch on the heaving green surface of the ocean.

"Brand my biscuits!" Chow exclaimed. "This lil ole contraption gets upstairs as fast as the Sky Queen!" He pointed to the Flying Lab, which was following at the same height.

Leveling off at ten thousand feet, Tom cut in the forward jets. With a burst of speed that pinned them back against their seats, the seacopter streaked forward through the sky.

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"Wow!" gasped Bud. "You've got a comet by the tail, pal!"

"Now I'll put 'er through a few paces," remarked Tom.

Soon the seacopter was turning, backing, soaring, swooping, and performing a dozen other maneuvers that left Chow and Bud breathless with amazement. At one point they passed low over a fishing trawler.

"If we had a few fishlines and some bait, we could hook the whole lot of them!" Bud remarked, chuckling.

Presently Chow asked, "How soon you aimin' to dive, Tom?"

"Soon as we get our suits on."

"What suits?"

"In that emergency locker. Break 'em out, will you, Bud?"

Chow's face screwed up in a look of comic dismay as Bud unpacked the deep-sea diving gear. "Brand my flapjacks," he groaned, "you expectin' ole Chow to cook in that rig?"

Tom smiled. "Don't worry, Chow, it's just a precaution for our test dive. On the real trip, these suits will stay in the locker."

After they had donned the somewhat clumsy outfits and turned on their individual telephone devices, Tom eased off on the throttle and shoved the control wheel forward. Slowly the seacopter settled down onto the surface of the ocean.

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"Stand by!" Tom radioed the Sky Queen. "We're diving!"

Reversing the blade pitch, he opened the throttle and the rotors hummed and picked up speed. Again he shoved the control wheel forward. Like a sinking stone, the seacopter plunged downward into the greenish depths.

Fascinated, Chow watched the schools of fish that flurried past the windows. There were herring, sea bass, and tunny.

"Man, oh man, what a sea-food dinner them critters'd make!" Chow muttered. At ninety-three fathoms down, the seacopter reached the ocean floor. Tom extended the caterpillar treads and they began crawling along the sandy, somewhat mucky, bottom. Sea anemones with waving tentacles, grasping sea urchins, and five-pointed serpent stars came into view, as well as many other strange, flowerlike creatures.

For nearly three hours the seacopter roamed the offshore waters, exploring at various depths. Then Chow suggested a break for lunch and begged to take off the diving suit. Tom agreed and they all removed them.

"Now show me where you got my galley hid," Chow said.

"Straight aft through that door," explained Tom, pointing to one of the sealed hatchways in the rear bulkhead. "We'll transfer to Cabin B and

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I'll use the controls in there. Bud, when I signal you, turn these off."

"Right, skipper!"

Stooping low, Tom led the way through the narrow passage that skirted the rotor blades. Reaching Compartment B, Tom opened one of the cabin doors. Behind it was a small, compact galley with refrigerator, electronic range, cooking utensils, and wooden dishes.

Chow's eyes bugged with admiration. "This sure is wonderful, Tom!" he gloated. "It's sure got a western chuck wagon beat!"

He soon had soup warmed and ladled out. This was followed by ham and peanut-butter sandwiches.

Lunch over, they prepared to surface. Tom stopped the rotors and the seacopter rose swiftly to the sunlit surface of the ocean. Again he reversed the blade pitch, gunned the turbine, and once more the craft became air-borne. The Sky Queen dipped its wings in congratulations.

As the two crafts soared back toward Fearing Island, Bud thumped the young inventor on the back. "Tom, this job's got everything!" he said enthusiastically.

"No matter where that rocket is, you can get to it!"

"With one o' these," said Chow, "a Texas rancher could herd cattle on the open range an' take week-end dips in the Gulf o' Mexico!"

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Tom accepted their plaudits with a quiet smile. But inwardly he felt a warm glow of pride that his seacopter had completed its shakedown cruise so successfully.

"Say," Chow spoke up with a grin, "why don't we call this here machine the Ocean Eggbeater?"

The boys laughed and Tom said his mother already had named it. "She said, since it speeds through both the air and the water, she was calling it the Ocean

Arrow."

"A swell choice!" Bud commented, and the others agreed.

Tom went on to say that Sandy had nicknamed the two cabins with the same thought in mind. Compartment A was Airmo and B was Subro.

When the seacopter landed at the island airfield, Tom issued orders for the craft to be given a thorough checkup. Then he and Bud took off in the Sky Queen for Shopton.

"Well, you're back! Good to see you!" Mr. Swift greeted them warmly as the boys walked into his office. "What's the report, Tom?"

"Good, so far as my invention is concerned. As for the rocket, we couldn't locate it." Telling of his suspicion regarding the mysterious submarine and the midnight canoe visit by four men, he added, "I think the expedition should take off as soon as possible. And, Dad, I believe it would be wise to build a duplicate model of the seacopter in case of emergency."

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Mr. Swift nodded agreement. "I'll schedule production right away."

"I have another idea, too," said Tom. "The sea-copter will hold six people. Suppose we ask the two oceanographers to go with us."

"Yes," said Mr. Swift. "Who will the sixth one be?"

"Aren't you coming?" Tom asked in surprise.

"Afraid not, son. I may get to the Amazon later, but right now I'm finishing work on a government project I can't leave."

"We'll certainly miss you," said Tom.

He picked up a phone and put through a call to George Braun and Ham Teller, speaking to them on two extensions.

"We're all set, fellows!" he told them. "How soon can you leave?"

"We'll hop a plane late tonight!" promised George, and Ham Teller agreed enthusiastically.

The next day Tom and Bud drove to the airport to meet them. Tom performed the introductions. As he shook hands, Bud sized up the two men. George Braun, red-haired, had twinkling green eyes and an easy grin. Ham Teller, a wiry six-footer, was prematurely gray and slightly bald. Both were about twenty-five years old.

Teller chuckled quietly. "What's the matter, Bud? Were you expecting a couple of old fogies?"

Bud reddened. "A bit more on the high-domed side, I admit," replied Bud with a laugh.

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"Well, Ham is high-domed, but nobody can call him a long-hair!" quipped George. "Seriously, don't let that word oceanography throw you. It's really one of the most fascinating subjects in the world."

"I dare say you've found that out already if you've made many undersea

dives," added Ham Teller. "Below the surface there's a whole world of mystery that science is just beginning to probe."

Both men were eager to discuss the expedition. As they rode along in Bud's red convertible, Tom told them about the rocket buried in the Atlantic somewhere off the Amazon basin and the Swifts' plan to recover it. The scientists were amazed and thrilled to be a part of the expedition.

"And another thing," said Tom. "According to the map, we won't have to go off course very far to take a look at the Atlantic Ridge. I admit to being curious about that city of gold. Maybe we can spot it and come back later to investigate the old city."

"That sounds great," said Ham.

"Now, tell us that Peruvian Indian legend that gave you the clue to the city of gold," Tom requested.

"According to the story," Ham began, "the Indians' ancestors thousands of years ago lived in this fabulous city. It was located on land far out in the ocean. But a series of disasters struck it."

"Such as?"

"First came a terrible earthquake. Then the

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ocean rose, flooding most of the outlying territory and leaving the city perched on an island. Finally that too began to sink under water, so the people took off in boats. That's how the Peruvian Incas came to South America."

Bud remarked that it was quite a story. "How does it help you figure out where the city of gold is?"

"There's a strange inscription on the walls of some old Inca ruins," George Braun explained. "Ham and I had it translated by experts. It gives a very careful account of the voyage, and by charting certain bearings, we think we've found the approximate spot the Incas started from."

"I'll point it out on a map," Ham Teller offered.

When they reached Swift Enterprises, he took a rolled-up sea chart out of one of his suitcases and spread it on Tom's desk.

"If our theory is right, the city of gold should be located just about here." Ham pointed out a spot in the South Atlantic near the Cape Verde Islands.

Tom gave a cry of surprise. "Why, that's almost where those underwater peaks are located-the place I told you about!"

Ham nodded with a glint of suppressed excitement in his eyes. "Exactly! If both our theories are correct, the spot may have been where part of that ancient civilization was located!"

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After lunch, the four took off by plane for Fearing Island and the rest of the afternoon was spent in final preparations for the journey. Tom personally tested the searchlights, solar batteries that ran the electrical system, and a rotor

adjustment on the seacopter.

He also joined with Bud and the mechanics in checking and stowing all the equipment needed for the expedition. This included skin-diving outfits, shark-repellent bags, deep-sea diver's gear, and special tools for underwater salvage. Chow, meanwhile, was stocking up the galley with enough canned and fresh foods to last for several weeks.

"Wonder if we forgot anything?" remarked Bud, as he and Tom slipped into bed that night.

"If we did, we won't remember it till we're halfway to the South Atlantic!" Tom chuckled.

Early the next morning, the boys saw an Enterprises' plane winging in and went to meet it. Aboard were Mr. and Mrs. Swift, Sandy, and Phyl, who had come to wish the travelers bon voyage. Tom and his friends were soon ready for the take-off.

"We brought something to christen your sea-copter, Tom," said Sandy, displaying a bottle wrapped in silver foil. She took a position near one end of the craft.

"A grand trip!" Phyl said, a little catch in her voice.

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"Do be careful!" Tom's mother pleaded as he kissed her good-by.

Mr. Swift shook hands with all the members of the expedition. "Good luck," he said, "and here's hoping you find both that lost rocket and the city of gold!"

One by one, the travelers climbed aboard. Tom and Bud took their places in Airmo, while Ham, George, and Chow let themselves down through the hatch of Subro. Tom raised his hand in signal that he was ready for the take-off. Sandy cracked the bottle against the fuselage and murmured:

"I christen thee Ocean Arrow!"

A second later, as the onlookers waved good-by, the seacopter rose into the air on her strange journey.

CHAPTER 12

THE CITY OF GOLD

ZOOMING through the sky at jet speed, the Ocean Arrow headed out over the Atlantic on a southeasterly course. Both Ham and George were amazed by its speed and performance.

"Must be the fastest ship on record!" exclaimed George Braun over the intercom.

"Wait'll you see this baby do her stuff under water!" Bud said with enthusiasm.

Tom said he planned to fly nonstop to the Cape Verde Islands and make his first dive near there. Hour after hour went by. As the sun rose higher overhead, Chow prepared and served the first meal of the voyage. When he brought it in, Bud sniffed at the meat, which was enclosed in frankfurter rolls.

"Hey, what is this stuff?" he demanded suspiciously. "Sure is no regulation weenie!"

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"Taste it an' find out," Chow dared him.

Frowning, Bud chewed a small mouthful. His face relaxed. "Mm, not bad," he admitted.

"It's delicious," Tom declared. "What is it?"

"Whale steak, shrimp, and crab meat-my own special recipe. 'Stead of a frankfurter, I call it a deep-sea 'furter!"

"You should open up a submarine refreshment stand," suggested Bud.

"Probably clean up a fortune selling red-hot sea dogs and whaleburgers!"

"I might jest do that!" Chow grinned smugly, pleased at the success of his first "deep-sea special." But somewhat later, back in his galley, the chef began to worry. "Mebbe I'd better call Tom an' Bud an' find out how they're feelin'."

Turning on the intercom, he called Tom's name. But there was no response.

He called louder. Still no answer.

"Something wrong, Chow?" asked Ham, noting the worried expression on the cook's face.

"By jiggers, that's jest what I'm wonderin'! Tom an' Bud don't answer! Mebbe it was the lunch!"

George Braun looked up in alarm. "Lunch nothing! Something serious may have happened to them."

"And the ship is flying itself?" Ham asked in awe.

Chow snapped off the intercom. "Reckon we'd better find out pronto!"

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Hastily opening the watertight door, he scrambled through the passage, the others following. "Wai, I'll be a three-horned toad!" the cook exclaimed. Tom and Bud were conversing calmly at the controls.

"Why the delegation?" Tom asked, looking around. "Catch a whale back there, Chow?"

The cook scratched his bald head in perplexity. "We thought somethin' was wrong with you two! How come you don't answer ole Chow when he phones?"

"What!" Tom was amazed to learn that the communication system must be out of order. Asking Bud to take over the controls, and grabbing a tool kit from one of the lockers, he quickly checked the system.

"Here's the trouble," he said presently. "A short in this coil." In a few moments he had it repaired.

The sun was a huge orange ball dipping low in the west when they finally came in sight of the Cape Verdes-a scattering of fourteen small islands. Tom cruised over the area for a while and studied the map, then finally pointed to a small cove.

"Let's put down there for the night," he suggested. "Looks fairly deserted." Their descent from the sky was evidently seen by some of the inhabitants of nearby farms and plantations. Several islanders came strolling down

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the hillside to investigate. Flashing white-toothed grins, they began to jabber in a mixture of Portuguese and Indian tongues.

Tom eyed them with a rueful smile. "I hate to be unfriendly, but I'd just as soon they don't come poking around our seacopter."

He talked to them—partly in Spanish and partly in sign language—and after handing out a few coins and presents, finally persuaded them to leave.

The voyagers spent what was left of the daylight in exercising, strolling about, and enjoying the fresh air. To their amazement, the native men returned, carrying armloads of bananas, melons, and vegetables which they forced on the visitors.

"Muchas gracias!" murmured the young inventor, smiling. "Bless 'em," he chuckled as the natives backed away, bowing and grinning. "This will be a real treat for supper."

At sunup the Ocean Arrow rose from the island. Tom and Bud were now in Compartment B, with the others in Airmo. The craft hovered out over the sea, and finally settled down on the water for a dive.

"If your calculations are right, the city of gold should be somewhere below us," Tom said on the intercom loud-speaker to the two oceanographers.

He eased forward on the control wheel and the seacopter plummeted downward.

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"Fastest dive we've made yet, skipper!" said Bud with a glance at the depth gauge.

Tom nodded. "Watch how the colors change outside the windows."

At first the view was made up mostly of green, blue, and violet. As they sank deeper, both fishes and water faded to a silvery gray. Bit by bit, the ocean darkened before their eyes. At two hundred and fifty fathoms they approached the realm of eternal night—too deep for sunshine to penetrate.

Tom reached out to the control panel and flicked on his powerful undersea searchlight. A fantastic world of deep-water denizens sprang into view under the stabbing yellow glare.

"Aha! Now, things get really interesting!" gloated Ham Teller. Both he and George had paper and pencil ready but were too fascinated to do much note-taking.

The fish that swam past looked like creatures out of a nightmare. All of them seemed to have gaping jaws and long, needlelike teeth. Many trailed long, dangling antennae from various parts of their bodies. Most were black or grayish in color, though a few were red, and at least one that darted into view was a

bright electric blue.

Chow gasped. "Put one o' them critters in a fry pan an' you'd get a stummick-ache jest lookin' at it."

"I believe many of these fish are prehistoric types, long thought extinct," Ham pointed out.

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"For instance, off the mouth of the Congo, fishermen netted one called *Crossopterygia* that was supposed to have died out two hundred million years ago."

"You mean it was hiding out in deep water all that time?" Bud quipped.

Ham laughed. "Until that one live specimen was caught, the only trace of that fish known to science were fossilized bones of its ancestors."

"Let's turn off the searchlights a minute," George suggested.

He and Tom flicked off the switches. The darkness outside the windows was broken by eerie phosphorescent gleams darting to and fro.

The boys continued to converse over the intercom. "Well, I'll be jing-whistled!" said Chow. "Never knew they had fireflies down here."

George grinned. "Those are fish, Chow. Some of these deep-water kinds carry their own headlights."

The searchlights went back on and the descent continued. Soon after the seacopter passed the one-mile-depth point, the search beam revealed the first crags and peaks of the Atlantic Ridge.

"Wow, undersea Alps!" murmured Bud, impressed by their size and grandeur.

Deeper and deeper they plunged. Soon the mountains formed a solid, impassable barrier. At a depth of two miles, Tom switched on the directional jets.

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"Let's cruise around a bit," he suggested.

Roving southward, they came in sight of a steep, canyonlike crevice in the mountain face.

"Should we take a peek inside?" Tom asked the two oceanographers.

Somewhat nervously, Ham and George agreed.

Like a giant fish, the Ocean Arrow nosed into the cleft. Minutes went by as they wound among the beetling rock walls. Presently the cleft widened.

Bud grabbed his pal by the arm. "Tom, look!"

Ahead, in the glare of their searchlight, lay a pillared temple! Excitement was so intense among the voyagers that no one spoke. All had their eyes glued to the windows.

Slowly Tom swiveled the searchlight. As the yellow beam swept over the area, other structures became visible. Though heavily crusted with barnacles and other sea growths, there was no doubt about their true nature-once upon a time they had been buildings constructed by human beings!

"You've found it, Tom!" gasped Ham Teller. "It's the city of gold!"

"Looks like a city, all right," agreed Tom. "But let's find out if it's really gold."

Steering close to the temple, Tom opened the forward jets, while steadying the ship with the rear group. He aimed the forward blast straight at one of the pillars. Like a powerful spray nozzle, it

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stripped away the encrusted sediment. Underneath, a greenish-gold metal shone in the searchlight glare.

Chow let out a wild whoop. "Brand my burro, if that ain't the real stuff, I never seen a miner's gold-dust pan!"

"Good night, Tom!" Bud breathed. "There ihust be enough gold here to fill a mint!"

Tom, Ham, and George were too awed to speak for several minutes. Then the young inventor said to the oceanographers, "You'll go down in history as great explorers-and the richest men on earth after you salvage this treasure."

"Which will be a job for a Swift invention," Ham retorted.

For the next hour, the Ocean Arrow weaved in and out among the various buildings while Ham and George scribbled copious notes. Then, after a brief conference, the mariners decided to shift their search farther south along the ridge to the area of Tom's theory. Gingerly the seacopter inched out through the crevice, then headed for the underwater peaks Tom had noted on the chart.

"It's about a ten-minute run from here," announced the young inventor as he gauged his speed.

When the time was up, a huge pointed rock suddenly loomed up alongside them, then another and another. The rocks were regular in shape,

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looking somewhat like Egyptian pyramids. They stood in the lee of a towering undersea mountain.

"Tom, your theory's correct!" exclaimed George Braun. "Those peaks are man-made- they must have been hewn out of the solid rock of the mountainside!"

"They seem to be arranged in a circle," added

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Ham Teller thoughtfully. "Anything in the center?"

Tom steered the Ocean Arrow between two of the peaks. An enormous open section, probably flat slabs of rock, now covered with muck, came into view. The pyramids were grouped around it.

"A ceremonial ground, undoubtedly," said

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Ham. "That flat rock probably was used by the ancients as an altar for making sacrifices to their gods."

"Let's take a look at that pyramid over there- the one close to the mountainside," said George. "Seems to have some kind of carving on it."

As Tom blasted carefully with the jets, the sea-copter veered close to the mountain. The rotor was whirling at constant speed, holding them poised in the depths.

"Those are carvings!" Bud exclaimed, flattening his nose against the window as he peered out at the pyramid. "If you can clean off some of that stuff, maybe we can-"

Bud's sentence was never finished. A terrifying thud resounded through the cabin as the seacopter shook wildly. A boulder had just crashed down on the hull!

Tom flashed the searchlight upward. "The whole mountainside's coming apart!" he cried out.

His words were followed by a hail of massive rocks pelting down on the Ocean Arrow!

CHAPTER 13

TRAPPED

THE BOYS were thrown to the deck as the cabin rocked from the force of the blow and a shower of rocks fell past the quartz windows.

"W-what caused it?" Bud gasped.

"Compression waves from the sound of our rotors probably-they must have loosened a strata of rock and caused a landslide!"

As he spoke, Tom grabbed the throttle lever and gunned the jets for a getaway. There was a brief spurt of power-then no further response! The needle of the rpm indicator flickered to zero!

Tom's face turned pale. "Bud, we've lost power! The pumps aren't working and the rotor's dead!"

"Then why don't we bob to the surface?" Bud asked.

"The weight of the rocks is pressing us down. We're sinking! Can't you feel it?"

Bud was too alarmed to answer. For several

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moments the Ocean Arrow continued to sink. Then suddenly there was a violent jolt that knocked the boys off their feet.

"Now what?" exclaimed Bud, rushing to the window as soon as he regained his balance.

"We're pinned on a rock ledge!" said Tom, playing the searchlight downward. Miraculously the high-powered lamp was still working. In its yellow glare, rocks and gravel could be seen raining down on all sides.

Bud stared in awe. "It's a wonder we haven't been smashed to pieces."

"If this were happening on dry land, we probably would be," replied Tom.

"Rocks fall slower in deep water. It is denser and gives them more resistance.

The rocks seem to weigh less, too, because of the buoyant effect."

Nevertheless, their plight was serious. The falling rocks had hit with enough force to cause leaks in some of the seams. Water was beginning to pour into the cabin at half a dozen points.

"I'll pull out the diving suits," Bud offered.

"Better be quick," Tom advised. "I wonder how the others are making out," he added worriedly.

He clicked on the intercom and called to his friends! His face turned grim.

"The line's dead," he announced.

At that instant the lights went out, plunging the cabin into darkness.

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"The final straw!" Bud groaned. "We're goners!"

Waist-deep in water, the boys groped around in the pitch darkness, trying to extract the diving suits from the locker where they were stowed. Moment by moment, breathing was becoming more difficult. Evidently oxygen was leaving the cabin at an alarming rate.

"Here they are!" cried Tom, pulling out the suits. But in spite of their frantic efforts, the task of organizing and donning the heavy gear proved too difficult.

"We can't wait!" Tom cried. He was panting now. "We'd better get to Airmo while there's still time!" He prayed that Compartment A and his friends in it were safe.

Tom located the watertight door in the rear bulkhead. Gasping for breath, he and Bud unlatched the clamps and with superhuman strength swung the door in against the water.

Fortunately, the passageway was still dry. Ducking low, Tom stepped in. Bud followed. They could hear the water sloshing in behind them and quickly yanked the door shut.

"The water will keep it from opening," Tom murmured as he led the way to Airmo's hatch. Reaching it, he banged with all his strength on the heavy door. At first there was no response and Tom's heart sank. Had the three inside drowned?

Tom and Bud pounded together. Suddenly

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they felt the door give and a moment later it swung inward. The cabin was in darkness but there was air!

"Tom! Bud!" cried Chow, as he closed and barred the hatch, then hugged both boys. "We sure were worried. You okay?"

"Yes, but we got flooded out and couldn't reach you on the intercom."

"Thank goodness you're all right!" said Ham and George in unison.

There was short discussion of the voyagers' predicament, then Ham said, "If only we had some light we might figure something out."

"I believe I can get the generator working," Tom answered. "Isn't there a flashlight anywhere? Bud, look under the pilot's seat."

Luckily, he located one and held it while Tom worked feverishly to get the generator started.

"How are you going to do it with the power dead?" George asked.

Tom explained that Airmo and Subro each had a motor-driven propeller, powered by one of Tom's solar batteries, in case of emergency. Therefore, even though the turbine and rotor were out of action, the generator could be driven off the propeller motor by means of a chain-drive hookup.

In a few minutes the job was completed. As the generator hummed smoothly, the cabin lights flickered on, then glowed into steady brightness.

"Marvelous, Tom!" said George.

TRAPPED 121

"Keep your fingers crossed. We're still in a tough fix!" cautioned the young inventor.

"How bad is it?"

"I'm not sure yet. Tell you better after I've looked things over."

Glancing outside, he concluded that except for certain portions of the windows in the front, Airmo appeared to be buried under a load of sediment. Tom now flicked on a light switch, and taking a wrench with him, went back into the passageway between the two compartments. From the inner wall, he took off the cover of an inspection plate and peered through a heavy glass window. A look at the rotor blades caused Tom to give a whistle of dismay.

"Pretty bad?" asked Bud, who had crowded behind him into the passage.

"Even worse than I thought, Bud. It's hopeless! The blades are bent and the whole unit knocked out of alignment. Not a chance in the world of fixing it down here."

In silence, the boys returned to Airmo. Chow, Ham, and George waited tensely for a report. Tom mulled over the situation a few moments, then voiced his conclusions.

"It's like this, fellows. Subro is flooded and damaged beyond repair. The rotor unit's wrecked. That means this cabin is our only hope. There's a mechanism for detaching it from the rest of the seacopter, but as things stand, that won't do much

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good. We're pinned down with rocks and gravel. As far as I can see, we have just one chance of escape."

"What's that?" asked George.

"We can extend the caterpillar treads and try backing off this ledge. If we get free, we'll drop deeper into the ocean, of course, because of that water-filled

compartment. But while we're falling I'll have a chance to release this cabin. However, there's one danger." Tom paused.

"Name it," said Bud.

"If the releasing mechanism has also been damaged, we'll plummet clear down to Davy Jones's locker and be trapped for good!"

Chow gulped and the faces of the others paled in fright.

Finally Chow spoke up. "If we all stay here, we're sure trapped, ain't we?" he asked.

Tom nodded. His keen blue eyes met his friends' glances with unwavering frankness.

"Then I reckon we may as well go ahead an' try it," said the old cook firmly.

"I'm with you!"

One by one the others nodded their agreement.

"Thanks," said Tom.

Stepping over to the control panel, he pulled a lever to extend the tractor gear, then pressed a button to start the treads in reverse motion.

"Here goes!" he muttered.

CHAPTER 14

A RISKY ESCAPE

SLOWLY the Ocean Arrow strained to back off the ledge. Could she do this, Tom wondered, with the weight of the boulders, rocks, and sediment resting on her roof? For several moments there was no apparent motion. Then at last the caterpillar treads began to grind through the muck.

"We're moving!" cried Bud.

"Inch by inch," observed Tom cautiously.

After that, no one spoke as they waited anxiously for signs of a breakdown.

Would the Ocean Arrow be able to pull free? Finally, there came a hard jolt.

"We're over the edge!" exclaimed George.

"Just a third of the ship," Bud said. "We'll have to go farther than this to break loose."

Tom swiveled the searchlight around, trying to ascertain their exact position on the ledge. "We

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should know soon," he muttered. "Another few feet may do it!"

Like a struggling animal, the seacopter clawed its way backward. Another lurch freed the rotor section from the rocks. For a moment the ship hung teetering on the very brink of the undersea precipice. Then, with a sickening lunge, it dropped off.

As Airmo upended, Tom and the others lost their balance and went crashing against the bulkhead. All lay stunned as the Ocean Arrow plummeted downward into the black abyss.

Chow was the first to stir. "Tom, what's hap-penin'?" he muttered groggily.

"We're headed for the bottom!" Tom gritted.

Scrambling to his feet, he grabbed the compartment release lever and gave it a yank. Nothing happened!

Bud stared at his pal with a look of horror. "It isn't working?" he faltered.

Tom shook his head, grim-faced. "Not yet. The releasing mechanism is either broken or jammed."

"Any chance it may jar loose?"

"I don't know," Tom admitted.

Hope wavered and began to fade as the mariners stared at the curtain of blackness outside the window.

A wave of despair swept over the young inventor. Would the diving seacopter become their tomb, destined to lie forever among the other

A RISKY ESCAPE 125

wrecked ships on the ocean floor? With considerable effort, Tom tried to keep his face from showing what he felt.

Suddenly Ham gave a cry of alarm. "The cabin's leaking!"

A slow trickle of water was seeping into one corner.

"There's still a chance for some of you!" Tom cried out.

He ripped a blank piece of chart paper off a pad and tore it into four strips of two different lengths. He rolled these into small wads, then shook them up in his cupped hands.

"Each of you draw one," he ordered. "There are three special deep-sea diving suits in this cabin. The ones who get the longest strips will put them on."

George, Ham, and Chow were the winners.

"The suits are in that locker," Tom pointed.

Chow started to protest. "Now listen, boss. You're the ramrod o' this outfit an' by jiggers I think you ought to-"

"Don't argue!" Tom interrupted sternly. "I'm the captain. Do as I say. You three won the draw, so put on the suits! Bud, you and I will try to repair this leak."

As he went to examine it there was a creaking, splitting noise. The mariners stiffened with apprehension.

"Airmo's breaking loose!" cried Bud.

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Then came another sound-a sharp crack! The compartment lurched upward as the passengers grabbed at seats and cabinets to steady themselves. For a second their bodies felt the increased weight that comes with sudden acceleration.

"We're rising!" George gasped. "We'll all be saved!"

Tom and Bud continued work, plugging up the tiny crack through which the water was spurting. As the pressure lessened, the calking job became easier.

The other passengers stared out the windows. Moments crept by as the inky

darkness did not lessen. But little by little-so gradually they could hardly notice the change-the black waters lightened into grayness. Then the gray began to assume tinges of green. The color deepened into a rich blue-green.

With a sudden springlike release, Airmo bobbed up to the surface. Dazzling sunshine poured in through the quartz windows.

"We're safe!" cheered Bud.

"Let's go topside and get some fresh air!" George urged.

With Bud in the lead, they scrambled up the short ladder, flung open the hatch, and crawled out. The waves sparkled in the sunlight and a brisk sea breeze was blowing across the water. Hungrily they breathed in great gusts of the salty air.

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"Oh, man, ain't this wonderful?" murmured Chow. "First time I could say that sea air smells better than ranch air!" He hauled out a big red bandanna handkerchief and mopped his brow.

The open sea stretched away in all directions to bare horizons. There was no trace of land or another ship.

"Where are we exactly?" asked Ham Teller.

"Way off course, I'm afraid," Tom admitted. Then he added suddenly, "Say, did someone turn off the searchlight?"

His companions all shook their heads, and George asked, "Why?"

"It's off now," replied Tom in a worried tone of voice.

Abruptly he turned and climbed down into the cabin, followed by the others.

For the first time they became aware of a strange silence.

"Hey, the generator's stopped!" exclaimed Bud.

Working quickly with deft hands, Tom opened a floor plate that revealed the propeller-drive system in the bottom of the hull. The shallow compartment was flooded!

Using a bucket-brigade system, they managed to bale out most of the water.

Tom checked and tinkered for several minutes. Then he finally raised his head, a grave expression on his face.

"The solar battery's dead," he announced. "That means we have no power to run the ship- and no radio to summon help!"

CHAPTER 15

WRECKED AT SEA

THE EXPLORERS stared at each other hopelessly as Tom's words sank home. Stranded in mid-ocean with no way to signal for help, their plight was desperate.

Bud was the first to shake off the mood. "Just a bunch of shipwrecked mariners, that's what we are. Well, Robinson Crusoe, where do we go from here?"

"At least," remarked George, "this is better than being sunk at the bottom of

the ocean." He clapped Tom on the back.

"Let's face it," said Ham. "We're still in a pretty serious fix. What are our chances of reaching land, Tom?"

The young inventor shrugged. "Depends on which way we're drifting. Let's take another look topside."

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Once again they trooped up the ladder and climbed out on the hull. Tom crumpled a sheet of paper he pulled from his pocket and threw it into the water. They watched for several minutes as it drifted slowly away.

"There seems to be a northwesterly current," Tom remarked. "I'm afraid that's more tough luck. If we drift in that direction, we have no chance of striking land for a long, long time. Our only hope is to be picked up by a ship or plane."

A grim silence followed this announcement. Finally George tried to change the subject by asking, "How's the food situation? I could eat right now."

Chow shook his head mournfully. "Sorry, pard-ner, but you're sure out o' luck. Ole Chow's galley, with all our grub, was in Subro an' she's gone to Davy Jones's locker."

Bud gave a loud groan and winked at Tom. "This is fine for you, Chow. You've been needing to reduce for years. But why didn't you rescue some food for the rest of us?"

Chow scratched his head. "I'll have to figure out somethin', I reckon."

As he fell silent, Tom remarked, "We'd better keep a pair of lookouts topside at all times. If we're all down in the cabin, we might miss sighting a plane or ship."

He and Bud offered to stand the first watch. Soon they were both streaming with perspiration

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as the rays of the tropical sun beat down pitilessly from an azure-blue sky.

"Man, it's getting too hot for me!" grumbled Bud as he shifted about uncomfortably. The metal surface of the hull had become blistering hot to the touch.

"Wait a second!" said Tom. Scrambling down the hatch, he reappeared a moment later with a folded tarpaulin which he spread out for them to sit on.

"Ah, that's better!" said Bud gratefully.

The greenish waters around them seemed alive with finny creatures. From time to time flying fish would arc through the air. Once a school of dolphins came splashing and diving alongside Airmo.

"I'd dangle my feet in the water, but some poor fish might think they were bait." Bud chuckled. Noting that Tom was staring moodily at the horizon, Bud threw an arm around his shoulders. "What's the matter, mariner?"

"Just thinking about Munson Wickliffe and his two stooges," Tom replied.

"Hang it all, while we're drifting around helplessly, just because we stopped to

see that city of gold, they may be salvaging that rocket!"

"Stop worrying," said Bud firmly. "We'll be picked up soon and still beat Wickliffe to the punch!" But secretly he wondered if Tom was not right.

When Ham and George finally relieved the

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boys, they went below. Chow was rummaging in the tool locker.

"What're you looking for?" Tom asked him.

"I'll show you later," said the old Texan. He paused and held up a slender, long-shanked screw driver. "Hmmm, reckon this'll do. Tom, could you grind a sharp point an' a barb on this thingumabob?"

"Can't run the lathe without power," replied Tom, "but maybe I could do it with a file."

Glad of a distraction to take his mind off their troubles, Tom set to work industriously. Soon he had the flat edge of the screw driver fashioned into the required shape.

"Brand my cookstove, that's just what I need!" Chow beamed. "An" now how about puttin' a hole through the handle?"

Tom complied. Then Chow got a coil of stout cord, threaded it through the hole, and tied a knot to keep it from slipping out. When he climbed outdoors, Tom and Bud followed, curious to see what he was going to do.

First, Chow belayed the free end of his line to a mooring ring on the side of Airmo. Holding the screw driver poised in one hand like a spear, he looked down into the water. When a fish swam into range, he let fly but missed. Chow's initial throws were all failures, but after half an hour of trying, he finally landed a fair-sized, golden-colored fish.

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"Sea bream," remarked Ham Teller, as the others clustered around to look over Chow's prize. "Good eating, too, when it's cooked. But I don't care for any raw, thank you."

"You jest let me worry about that," said the cook smugly. "Ole Chow's not goin' to let Bud Barclay throw him when it comes to grub."

Resuming his efforts, Chow soon hauled in two more catches-both hogfish.

"Okay, so you're a fine spear fisherman," said Bud. "Now what happens?"

"Watch an' see, Bud boy. Jest watch an' see!"

Chow cleaned the three fish carefully with his jackknife, split them in halves, and laid the fillets on the hot hull. Soon the flaky meat began to dry out and an aroma of fish filled the air.

"Well, I'll be a scootin' sky ghost!" exclaimed Bud admiringly.

Chow now scooped some floating seaweed out of the water. "Chock full o' good minerals an' vitamins!" he remarked as he soaked the greens in the oil oozing out of the fish. When the meal was ready, he announced proudly, "Come an' get it! Fried fish an' seaweed salad! Reckon you may have to eat with your

fingers, but that ain't spoiled a hungry man's appetite yet!"

The others grinned and ate it with relish, despite the fact that the seaweed tasted rank and the fish was half raw. After eating every scrap, everyone felt much better.

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"Chow, you're worth your weight in gold!" Tom praised him.

The grizzled chef blushed. "Aw shucks, 'tweren't nothin' special!" he muttered.

Later that afternoon, when George and Ham were watching for a passing plane or ship and Tom was napping below, Bud shook him vigorously. "Wake up, skipper! The fellows have just sighted a plane off to the west!"

Tumbling out of his bunk, Tom followed his friend outside. Ham and George had ripped off their shirts and were waving them wildly in the air. Far off in the blue a silver speck was visible.

"They see us!" Bud yelled.

"We're goin' to be saved!" Chow chortled.

Soon the drone of the plane's engines could be heard as it drew nearer. Sure of rescue now, the shipwrecked five waved happily.

But their hearts sank as the craft passed over without dipping its wings or giving the slightest sign of recognition. Speeding off on a curving course to the southeast, it quickly disappeared from view.

"They didn't see us," gasped Chow.

"They saw us, all right," said Tom grimly. "Incidentally, the number on that plane had a PT prefix, which means it came from Brazil."

"Brazil?" echoed Bud. "That's where you saw Ferd Acton and Kelt Price!"

Tom nodded. "It could have been those two.

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WRECKED AT SEA 135

And did you notice that gadget trailing out from the fuselage? Looked to me like a magnetometer for detecting metal."

"Those sneaking, cold-blooded rats!" Bud cried angrily. "I'll bet they're laughing themselves sick at the mess we're in!"

George was glumly silent, but Ham took the situation philosophically.

"Listen," he said cheerfully, "if they're still searching, it means they haven't found the rocket yet!"

"That's right," said Bud.

Tom took what comfort he could from this point of view. To keep his mind occupied, he spent the rest of the daylight hours trying to rig up a hand-cranking apparatus for the generator to supply power for the radio. But in spite of the gear train he used to obtain a high mechanical advantage, he could not work up speed enough to produce any sizable output of current.

As darkness fell over the sea, the spirits of the group reached a low ebb. All five of the mariners sat on the hull, brooding and listening to the dark waters lap at the sides of Airmo.

Paying no attention to the brilliant display of stars overhead, Tom wondered despairingly if he would ever see his home and family again. Suddenly he looked up, startled, as Chow grabbed his shoulder.

"More bad luck! Look at all that choppy, fiery water we're a-comin' to!" the cook shouted.

CHAPTER 16

EARTHQUAKE ISLAND

NOT FAR from the stranded mariners was a broad phosphorescent lane of water leading to the north. The glowing waves were rougher and more turbulent than the rest of the sea.

Tom gave a joyful shout. "That's not bad luck, Chow-it's good luck! In fact it's wonderful!"

"What?" The cook stared in amazement. "How you figure that?"

"The fiery water will lead us straight to an island! It's like a signpost in the sea-all we have to do is follow it!"

"Tom's right," George nodded. "Often happens in the Pacific. That's how the South Sea natives find their way from island to island in their outrigger canoes."

"What causes it?" Bud asked.

"Well, you might say the ocean swells stub their

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toes on a island," George explained. "That causes a long line of turbulent water all along the front of the swell, which is what we're looking at right now. And the water's glowing because all the tiny phosphorescent organisms in it have been stirred up close to the surface."

"I get it." Bud grinned. "Following that line of glowing water is like walking down Main Street in the middle of the ocean-with street lamps to guide the way! Mighty convenient, I call it!"

"If we're lucky," Tom exulted, "we may find help on the island. We might even be able to get the radio working so we can send a message!"

Chow was dubious. "We got to reach the island first. What I want to know is how we goin' to get there?"

"Have to find some way to paddle." Tom clambered down the hatch. "Come on!" he called. "Let's see what we can dig up for oars."

Luckily, there was enough moonlight shining in through the windows to illuminate the cabin. The five mariners scurried around, rummaging through the stowage lockers and examining every piece of equipment. But nothing turned up that seemed to answer the purpose.

"We're out of luck again," groaned Ham in disgust.

Tom snapped his fingers. "I have it! Why don't we take off the sheet-metal doors on the lockers?"

"Genius boy, you're wonderful. I knew you'd

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come through!" exclaimed Bud. "Let's get busy with some tools!"

There were six lockers in the cabin. Five of the doors were soon removed.

Fortunately, they were strong and rigid, yet small and light enough to be handled easily by one man. The shipwrecked men hauled the doors topside, sprawled across the hull, and dipped their improvised paddles into the water.

"Ready, set, pull!" Tom ordered, and the men began paddling vigorously.

It was hard, exhausting work, but the thought of hitting land by following the phosphorescent glow spurred them all on.

"Don't look to me like we're doin' a blamed bit o' good," said Chow after an hour had gone by.

"Keep at it," Tom urged. "We're making headway. I can tell by the wake we're stirring up."

"What island do you suppose we'll hit?" mused George Braun when they stopped for a breather.

"Search me," said Tom. "It's a mystery. As far as the charts show, there's not a speck of land in this part of the ocean."

All night long the group toiled with their makeshift paddles, halting only for occasional rest periods to ease their aching muscles. At the first gray streaks of dawn, Bud spotted a barren, mist-shrouded clump of rock rising out of the ocean about five hundred yards ahead.

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"Oh, no!" he moaned. "Don't tell me we've been breaking our backs all night just for this!"

Ham and George looked at each other but said nothing.

Chow, trying to hide his disappointment, said bravely, "Reckon it's better than nothin'. Leastways, it's dry land."

"Just barely," Bud said gloomily.

Disheartened, they reached the shore of the tiny islet. Tom lowered the tractor treads of Airmo and rode up on the beach. Its passengers jumped down onto the black rocks.

"No wonder this place isn't on the map," remarked Bud in disgust as the group strolled about to stretch their legs. "It's too small even for the sea gulls to bother with!"

"Now that you mention gulls," said Tom, "it's rather odd there are no sea birds around. What do you make of it?" he asked the oceanographers.

"Looks to me like a temporary island," said Ham Teller.

George Braun nodded. "Probably part of the Atlantic Ridge, thrown up by an undersea earthquake."

"What do you mean, temporary?" asked Bud.

"Just what it sounds like," Ham answered. "In case you didn't know it, islands sometimes do a disappearing act."

"Oh, you mean like Falcon Island in the Pacific?"

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I've read how that has appeared and disappeared two or three times."

"That's right. And Bogoslof Island up in the Aleutians does the same thing," added George. "There's one that not only changed shape and vanished several times, but it has even been known to change position."

"Jumpin' horse wranglers!" Chow put in. "If this here rock pile's goin' to start playin' tricks like that, mebbe we'd better hop back on Airmo."

Chuckling, George patted the cook soothingly on the shoulder. "Don't worry, Chow. Chances are that this island will stay put for a while."

While it was still cool, the men lay down for a much-needed rest and fell fast asleep. Chow was the first to awaken. He perched himself on a rock and patiently hurled his screw-driver spear again and again at the fish that swam into view. By noon he had caught half a dozen.

"What's on the menu today?" asked Tom, as he awoke and saw the old Texan unhook his barb from a yellow snapper. "Another mess of fried fish hot off the griddle?"

Chow grinned. "I reckoned that this time we might try 'em steamed."

"Fine. But where do we get the steam?"

Chow took a round glass out of his shirt pocket. "See this here magnify in' lens? I took it off one o' the instrument dials in the cabin. Now you jest looky here an' watch what I'm goin' to do."

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After cleaning the fish, Chow collected a wet mass of seaweed and arranged it in a sort of hollow rock basin which already contained a tiny pool of sea water. Then he laid the fish on top of the seaweed and held the lens poised over it so as to collect and focus the rays of sunlight.

"A burning glass lens for a steam cooker!" Tom chuckled. "If you can make it work, Chow, my hat's off to you!"

Unfortunately, the cook found that the beam coming through was so small that he could produce nothing but scorched spots on the fish. Tom suggested that Chow bury the fish in the pit of steam-heated seaweed and watch the result. After half an hour the meat was partially, though palatably, cooked.

As the stranded explorers squatted around and ate hungrily, Tom gazed off into space. Bud grinned and nudged him in the ribs.

"Okay, fellow. I've seen that look before. What's cooking inside that twenty-four-carat brain?"

Tom smiled back. "Chow gave me an idea."

"What kind of an idea?"

"On how to get our radio working."

The others looked up in eager surprise. "You mean it?" exclaimed Ham.

"Wait and see. It may not work."

When they finished eating, Tom went aboard Airmo, pulled up the floor plate, and removed the solar battery. Taking it out on the rocks, he

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opened the catalium case so as to expose the rolled-up sheets of sol-alloy foil. This metal foil, which he had invented especially for his solar battery, was used to absorb and store the concentrated energy of the sun's rays.

"You wouldn't be planning to recharge the battery, would you?" asked Bud as Tom poured out the water-diluted ammonia.

"That's exactly what I'm planning to do," replied Tom.

"But how can you? We're not up in your space station-we're not above the stratosphere. How can you get an intense enough dose of the sun's rays?"

"I'll show you," Tom said, and vanished through the hatch of Airmo. A few minutes later he reappeared, holding a bowl-shaped, highly polished aluminum object twelve inches in diameter.

"What's that contraption for?" Chow asked.

"It's the parabolic reflector from the camera. I'll set this reflector up so the rays of the sun will strike it directly. The angle of reflection is such that the rays all concentrate at one point a short distance above the concave surface."

After pouring fresh ammonia into the battery, Tom suspended it from a stick anchored into the ground, turning it to catch the reflected rays of the sun.

"We'll leave in an hour," Tom said. When the

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time was up, he murmured hopefully, "Now we'll see if my idea panned out."

Back on board Airmo, Tom hooked up the radio so it would feed directly from the battery. Then, flipping a switch, he turned on the set which was beamed to Swift Enterprises. A few seconds later there was a faint sputter of static.

"You did it, pal!" whooped Bud.

"Think it'll be strong enough to get through?" Ham asked.

Tom shrugged and began speaking into the mike. "Ocean Arrow calling Enterprises . . . Ocean Arrow calling Enterprises . . . Mayday! Mayday! We are disabled and stranded on an uncharted rocky island northwest of the Cape Verdes, approximate position-"

Tom rattled off a set of latitude and longitude figures based on the position where he had submerged. He repeated his call several times.

Within seconds after he had signed off, a faint voice came through, saying,

"Enterprises to Ocean Arrow. We have-" A sudden barrage of static drowned out the rest of the message. The signal gradually faded out.

"Oh, for Pete's sake, we've lost it!" groaned Bud.

Repeated efforts failed to restore contact. "We'll have to give up for the time

being," sighed Tom as the others stood by, watching and fidgeting in baffled anxiety. "The battery's gone dead. At noon

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tomorrow, when the sun is highest, I'll charge it again."

As night fell, the mariners stretched out on the rocks, using blankets for pillows. Soothed by the night breeze, they were soon asleep. As day broke, Tom was rudely awakened by Chow.

"What's up?" the young inventor asked.

"Water's risin'!" exclaimed the cook. "Whole island's bein' swallowed up!"

Tom leaped to his feet and gazed around him, aghast. The sea was flooding in over the rocky coast line. Overnight the island had shrunk to half its former size. Even as they watched, the waves were lapping higher and higher.

Tom awakened the others. "Quick!" he ordered. "We must get back into Airmo!"

As they clambered onto the hull, Bud suddenly cried out, "Wait a second! I hear a plane!"

CHAPTER 17

A MENACING SUBMARINE

TENSELY the five castaways waited, straining their eyes to pierce the sky from which had come the sound of the jet plane. Was rescue on the way or was another disappointment in store for them?

"It's hardly light yet," fretted George. "Wonder if the pilot will see us?"

"We'll make him see us!" declared Tom. "Rip off your shirts and start signaling!"

As the men followed Tom's suggestion, a great silver-winged giant loomed into view.

Bud gave a whoop. "The Sky Queen!"

Tom's relief was so great that tears came to his eyes. Frantically the group waved their shirts. Dipping her wings, the Flying Lab swooped low and spiraled in over the island.

A moment later the mammoth ship cut in her jet lifters and settled down to a precarious perch

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on the rocky islet. A hatch slid open in the lower deck and a ladder was run out to take on the five castaways. Aboard were Mr. Swift, Hank Sterling, Slim Davis, and Arvid Hanson, chief modelmaker of Swift Enterprises.

"Thank heavens you're all safe!" exclaimed Tom's father, hugging his son in a warm embrace.

"Dad, you're a sight for sore eyes!" Tom replied, adding, "and the rest of you too. I was afraid that you weren't getting my message strong enough to do us any good."

"We couldn't hear what your position was. That came in too faint."

Slim spoke up. "We've been scouring this part of the ocean for half the night with Mr. Swift's giant searchlight."

Quickly Tom gave the rescuers an account of their adventures. Arv Hanson shook his head in amazement. "You guys are lucky to be alive!"

"The most important thing right now is to get on with our search for the rocket," said Tom thoughtfully. "Dad, how are they coming at the plant with Ocean Arrow II?"

"The duplicate model of your seacopter is finished," replied Mr. Swift. "Hank and Art Wiltessa tested it yesterday."

Tom was delighted with the news. "I'll have it flown to Marajo Island. We can pick it up there and use the island as our base for the search."

His father was somewhat dubious. "Sure you

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fellows feel up to it, after what you've been through?" Bud, Chow, and the two oceanographers declared that they were ready to continue the hunt for the rocket.

While Compartment A of the wrecked seacopter was being hauled aboard the Sky Queen through the cargo hatch, Tom contacted Swift Enterprises by radio.

"You're safe!" George Billing shouted in relief, as he recognized Tom's voice.

"Boy, will your mother and Sandy be glad to hear that."

"Give 'em my love," said Tom. "Slim, I want Ocean Arrow II flown to Marajo Island pronto!"

"It'll be there."

The Sky Queen took off for Marajo.

Upon reaching the island, Tom found it difficult to discover a landing spot but finally selected a ranch in the northeastern part. As they landed, the visitors were greeted by an unfriendly group of barefooted native cowboys astride humped oxen. But after some long-range shouting back and forth, they finally got permission to debark.

The cowboys came loping toward the Swifts and their friends on their queer-looking steeds. All the natives wore broad-brimmed straw hats and most of them had red flannel capes tied around their necks.

Chow snorted with derision. "If that ain't the gol-durndest thing I ever seen-cowpokes ridin' Brahma steers!"

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Mr. Swift, who had been in this part of the world before, explained, "Cattle are more surefooted than horses for this type of country, Chow. Their hoofs spread out and keep the animal from bogging down in the swamps."

"But what do those cowboys need with capes in this sizzlin' weather?" Chow asked.

Mr. Swift grinned. "The capes protect them from the sun when it's hot and keep them dry when it rains. At least that's what they claim."

Chow's only comment was another snort.

Later that afternoon, Ocean Arrow II came skimming over the island. Seeing the Sky Queen, it came in for a landing.

"Dad, before we take off on our search for the rocket, it might be smart to question the natives a bit more," Tom said. "We might pick up a clue that would save us a lot of time."

Mr. Swift nodded. "I agree, son. The best bet is Soure on the southeast coast. That's not only a seaport-it's also the biggest town on the island. If there's any news about the rocket, it should turn up there."

Tom turned to Bud and Chow. "Want to come with me and see the sights?"

His two friends agreed eagerly, so they took off for town in the new seacopter. Slim went along to guard the Ocean Arrow while they were absent.

Minutes later they whirled down for a landing on the outskirts of Soure.

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It was a colorful-looking town, with red-tiled roofs and houses painted every color of the rainbow. The buildings were laid out in squares on either side of the broad streets, with a row of green mango trees running down the center of each un-paved sandy strip.

In the market place Tom said he would leave the others for a while. "I'll join you here later."

Chow and Bud sauntered past the open-air stalls. Some displayed fresh beef and vegetables; others offered purplish drinks and ice cream made from the fruit of the assai palm.

Suddenly Bud stopped before a stand where a fat Indian woman was selling hand-woven baskets, painted gourds, and other native objects. He pointed to a curious green stone carved in the shape of a turtle which lay on the counter.

"I believe that's jade, Chow. What a present to take home to Sandy!" Bud turned to the Indian woman. "Do you speak English?"

She nodded. "Sim., Senhor-a little."

"How much for that green gadget?"

"Ah, the piedra verde. It is not for sale."

Bud frowned. "Why not? You can make another one, can't you?"

"You do not understand, Senhor," she replied. "I do not make this-it is very, very old. It belong to Amazon warrior women many years ago. They dive for these stones in lake called Mirror of the Moon."

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Chow's eyes popped open. "Warrior women! What is she talkin' about?"

"The old Spanish explorers claimed they found a tribe of female warriors living up the Amazon River," explained Bud. "The natives still say it's true." He turned back to the woman and spread some coins on the counter. "Will you take

this much money for it?"

The Indian shook her head vigorously. Bud took out a dollar bill and laid it with the coins, but again she shook her head. He kept adding money but still she refused.

"Not for sale!" she insisted.

"Reckon you better leave this to me, son," said Chow. Reaching into his pocket, he took out a fake pearl necklace and several sparkling trinkets. "Now here's somethin' a pretty gal like you kin use a lot more'n money!" he told the woman.

Holding the necklace up in place under her billowing double chin, he went on, "Jest look there! Ain't that gorgeous? 'Course they ain't near as beautiful as your eyes an' they don't sparkle half so bright, but they sure do look first-rate on you!" The fat Indian woman blushed and smirked. "For you, Senhor, I cannot refuse. Here-take the piedra verde. In old days, the beautiful Amazon give this to the man she love best-just as I now give this to you."

The woman beamed and smiled, bending close

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to Chow as if she were about to kiss him. The former chuck-wagon cook took the stone and backed away nervously. Under his breath, he muttered to Bud, "Come on, let's vamoose!"

"It will bring much good luck and save you from danger!" she called after them.

Later, as the two North Americans hurried down the street, Bud asked with a grin, "How did you happen to have that junk in your pocket, Chow?"

The Texan replied smugly, "You ought to know by now I never travel in Injun country without a few knickknacks fer trade goods."

"Trade goods, nothing! It was that smooth line you handed her that did the trick!"

When they rejoined Tom and told him their story, he chuckled.

"That woman said this green stone protects you from danger and brings luck," Bud explained.

"That's fine. It looks as if we'll need it," said Tom, becoming serious. "I've just picked up the trail of Wickliffe, Acton, and Price."

"What!" Bud and Chow cried together.

"Three men who fit their descriptions," Tom went on, "left here a few hours ago in a sub called the Piranha. They claimed to know exactly where the rocket is located!"

"Blazin' jets!" exclaimed Bud. "If that's true, they have us licked before we start. What're we going to do?"

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"I have one hope," said Tom. "I heard about a native astronomer named

Taclos who lives here on the island. He's an old Indian who claims he saw the fireball come down."

"Where kin we corral this Injun?" queried Chow.

"He has a house a few miles from town. I think we can find it."

Returning to Slim at the seacopter, they took off and flew westward from Soure. On the very edge of the jungle, they sighted a rambling, palm-thatched bungalow.

"If I got my directions straight, that must be Taclos's house down there," said Tom.

The Ocean Arrow hovered in for a landing. Tom and Bud walked to the bungalow and knocked. A red-skinned young native opened the door. He was about twenty years old and wore a greasy-looking white cotton shirt and trousers.

"Does Senhor Taclos live here?" inquired Tom.

"Ah, yes, Senhor. But he is not at home. I am only Raca, his servant." The young man's shifty black eyes studied the visitors.

"Can you find him?" Tom went on.

"Alas, Senhor, he has gone away on sea journey with man called Week-leef."

"He must mean Wickliffe!" exclaimed Bud.

Tom decided on a random shot. "Do you know where the fireball went down in the ocean?"

"But of course, Senhor. I will show you." The

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native stepped out of the doorway, picked up a stick, and began tracing out a map in the soft sandy earth. "This Marajo. This Para River."

"Yes, I follow you," said Tom.

Raca drew a line halfway between the shores of the Para River and ran it out to sea. "Fireball about sixty mile away," he said.

Tom thanked him and they took off again in the seacopter. Slim and Chow were amazed to hear about Wickliffe's apparent connection with Tac-los.

"I wonder if that servant was telling the truth," Tom said.

He decided to try checking the story in Soure and returned there. He found several people who had seen the rocket. All had their own ideas of where the fireball had gone down, but on the whole, these seemed to agree with Raca's information. Tom felt better.

It was nighttime when he arrived with Bud and Chow at the fazenda or ranch where the Sky Queen was berthed. Over a hearty meal of broiled beefsteak in the lounge of the Flying Lab, Tom told his father what they had learned.

"If we do find the rocket, Dad," said the young inventor, "I believe the best way to raise it will be with your new improved giant magnet-the same way you raised my jetmarine."

Mr. Swift agreed, but added, "This time, we'll stand by in the Sky Queen in case of emergency."

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Then if anything goes wrong while you're submerged, we'll be on hand to give you help fast."

"That means you can come with us!" Tom exclaimed, but Mr. Swift said he would be working in the laboratory on the important government project. The following morning the five adventurers climbed into the seacopter, taking their original positions, and soared skyward. When they reached the mouth of the Para River off Cape Maguary, Tom brought the ship gently down on the water, then submerged. Soon they were knifing seaward through the shallow green offshore waters.

Tom glanced up from the controls. "Flick on the sonarscope, will you, Bud? I'd like to locate Wickliffe and his pals if I can."

About twenty miles out to sea, Bud sang out a warning, "A sub's tailing us!" Tom leaped into action. He picked up the intercom and gave the warning.

"Switch on the searchlight and report to me!"

A moment later Ham yelled, "There it is!"

He had caught sight of a slim, black hull speeding toward them. Across its conning tower, lettered in white, was the name Piranha.

"It's going to attack us!" Ham cried out fearfully.

CHAPTER 18

UNDERSEA SEARCH

FEAR clutched the hearts of the Ocean Arrow's passengers as they watched the enemy submarine close in on them.

"You think the Piranha will ram us?" asked George.

"They won't damage their own craft," Tom replied grimly. "Torpedo or missile, more likely! But I won't stick around and find out."

He was already shoving the control wheel forward and putting on full power.

The seacopter sank like a stone, trailing a foaming wake above her.

Seconds later, a thunderous kaboo-o-om resounded through the water. The Ocean Arrow rocked and shuddered under the force of the explosion from the Piranha. Tom grabbed the controls tightly enough to save himself from being

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thrown off his feet, but the others in the seacopter were hurled to the deck.

As the seacopter touched bottom on the continental shelf, Chow dragged himself upright.

"Oh, man alive!" he muttered groggily. "Reckon we cleared outa there jest in time!"

The others too struggled to their feet. Clinging to the bulkheads, they waited for another blast. But nothing happened. Gradually the shock waves of the first explosion died away.

Bud was white with fury. "Those sneaking, yellow-bellied sea rats!" he gritted.

"If I ever get my hands on Wickliffe and his two goons, I'll break 'em in bits!" As no further attack came, Bud got another idea. "Why don't we follow 'em, Tom?"

"And risk another bombing?"

"They probably think they got us the first time," Bud pointed out. "If we trail them, they might lead us to the rocket."

Tom's face became thoughtful. "Okay. Guess it's worth a try." Slowing the rotor, he allowed the seacopter to rise to the depth at which they had first sighted the Piranha. "See if you can pick her up with sonar, Bud."

The copilot watched the scope intently as the ultrasonic pulses went ranging out in all directions. "No sign of 'er, skipper," he reported.

Tom nodded. "Let's see if we can pick up the sub on our sound-detection equipment." He

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turned it on. The usual background noises came through, but no throb of a sub's propellers.

"They must have high-tailed it out to sea right after they bombed us," said Bud.

"Either that or they stopped their engines," Tom responded.

"You think they're lying in wait for us somewhere?"

Tom shrugged. "No telling. As long as they're out of sonar range, I'd say we have nothing to worry about. But keep an eye on the scope, Bud."

Gunning the jets, Tom headed for the area where Raca had said the rocket landed. About sixty miles from shore he cut speed and prepared his instruments for the search. Both the metal detector and the Damonscope were mounted in special blisters on the hull of the cabin he and Bud were in.

Tom flicked on the intercom. "Ham and George, will you come forward and take over a job?"

"Sure thing," they answered.

Reaching the compartment, they listened carefully as Tom explained how the metal detector and the Damonscope worked. Then, as the oceanographers began their task and Bud watched the sonarscope, Tom started coursing back and forth over an area several miles square. As before, the metal detector gave off a faint clicking but showed no mass of metal the size of a rocket.

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"How about the film in the Damonscope?" Tom asked. "Any sign of fluorescence?"

"Nothing so far," George replied. "I've checked the film four times and it's still blank."

Half an hour later they had still found no trace of the sunken rocket. Chow poked his head through one of the passageway hatches. "If you ask me, that Raca hombre gave us a bad steer."

"That's my hunch, too," Bud agreed. "I'll bet he and his boss Taclos are in league with Wick-liffe. Why don't we go back and drag the truth out of Raca right now?"

Tom gave a wry grin. "We can't make him talk. Anyhow, the rocket must have landed out here somewhere. Remember what those fishermen told us? And those other people in Soure gave us pretty much the same story. So we can't be far off."

"I still think we'd be smart to check up on Taclos and Raca," Bud insisted stubbornly.

Tom considered a moment. "Maybe you're right. Take over the controls, will you, and go upstairs to where we can run our antenna up out of the water." When Bud had done this, Tom tuned in the radio, warmed up the set, and spoke into the mike:

"Ocean Arrow calling Sky Queen . . . Ocean Arrow calling Sky Queen."

Mr. Swift's voice came back, "Sky Queen to Ocean Arrow. Any luck, son?"

"Not yet, Dad. But I have a request."

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"Name it. Need some help down there?"

"No, but I'd like you to do some detective work," said Tom. He explained first how the Piranha had tried to torpedo the seacopter, then said Raca had probably given Tom misleading information about the site of the rocket.

"See what's up, Dad."

"All right, son."

After signing off, Tom told Bud to descend near the ocean floor. "It looks as if we'll have to go over this whole area with a fine-toothed comb," he said, and relayed this news to the men in the other compartment. "We'll follow an expanding-square search pattern."

"What's that?" Ham asked.

Tom explained. "First we steer a course in the shape of a small square, just a few hundred yards long on each side. Then, each time we go round the course, we keep making each side longer, so that the square gets bigger and bigger. If we keep it up long enough, we can cover an area of any size."

"I see," said Ham. "That should do the trick all right. If the rocket's down here, we'll find it."

Tom took the controls, swung the wheel, and kicked the rudder pedal for a right turn as he began steering the search pattern. Fifteen minutes went by, then half an hour, with still no clue to the rocket's location.

For the next few hours they cruised steadily

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through the shimmering green waters, raising and lowering the Ocean Arrow as the depth changed. At times the pattern took them almost a hundred miles out to sea. Clouds of the tiny plants and creatures called plankton drifted past their

cabin windows, as well as schools of fish, squid, and eels. The Damonscope and the metal detector gave no hint of the rocket and there was no visible sign of it. Presently Bud asked, "What depth are we at now?"

"Eighty feet," Tom replied. "But in a minute-"

The young pilot broke off as he felt the Ocean Arrow heave violently. Bud and the others were sent reeling to the floor. Tom grasped the wildly twisting wheel, his knuckles white with the strain. He pushed his feet hard against the steering pedals with all the force he could muster.

"Brand my bronc! What's goin' on?" screeched Chow as he clawed wildly to keep his balance.

"We're caught in an ocean jet stream!" cried Ham.

"I can't get her to settle down!" Tom shouted. His face turned pale as he realized the ship was being swept completely out of control.

CHAPTER 19

MAN OVERBOARD!

"HELP ME-b-brace the-wheel, Bud!" Tom managed to stammer out.

Bud leaped to his friend's assistance, gripping the wheel firmly with both hands. "It's like trying to ride up the center of a tornado!" he gasped. "What can we do?"

"Work our way out," answered Tom, "before we're shaken to pieces."

"J-j-jumpin* c-catfish!" groaned Chow in the rear cabin. "It's l-like ridin' a locoed mustang!"

George Braun, behind Tom and Bud, steadied himself against the side of the cabin. "We must be moving close to solid bottom. That's what's causing all this turbulence!"

"We'd b-better-do something-and do it fast!" Bud urged.

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"Cut the power!" Tom ordered.

Bud complied, but the mariners felt the sea-copter lurch even more vigorously. "The turbulence is getting worse!" shouted George. "It'll tear us to pieces."

"Quick, Bud!" Tom cried. "Throw the rotors into positive pitch. Pour the coal to them! We'll try climbing up and out." The rotors began to churn. "Now cut in the jets-full power!"

A few seconds after Bud had pushed the blade lever with one hand and rammed the jet throttle forward with the other, the Ocean Arrow responded. But it acted like a maddened animal. The others could do nothing but hold on and wait as the young inventor clung to the controls with all his strength.

"W-w-we must be sittin' on top a volcano!" sputtered Chow. "What's the matter, Tom?"

"I'm trying to hold the nose of the ship upstream," Tom replied. "We're riding

against the turbulence!"

Suddenly the Ocean Arrow seemed to go in all directions at once. This was followed by a terrific jolt. Then suddenly the turbulence ceased and the seacopter settled down. Tom instantly cut the jets and changed the blade pitch.

"We're safely out of the jet stream!" he announced.

There was a short silence as everyone relaxed and heaved deep sighs of relief. Then George

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Braun leaned forward and clapped both boys on the back.

"Congratulations! That slick job of piloting really saved our necks!"

"No telling what might have happened if you hadn't pulled us out," agreed Ham Teller. "Those undersea currents are tricky and deadly-and so far, science knows practically nothing about them."

"Like ghost winds up in the stratosphere," Tom commented, and winked at Bud. The two had wrestled with them, too.

Chow, his voice a bit shaky, called over the intercom. "Man, oh man, what a day! First we get bombed an' then we get blowed around worse'n a tarpaper shack in a Texas twister! Wonder my nerves ain't all unstrung!"

"Ship's taken quite a pounding too," said Tom worriedly. "I'd better make sure everything's all right." He checked the gauges on the instrument panel, then turned to his copilot. "Watch the controls a minute, will you, Bud?"

Beginning in the forward cabin, Tom worked his way aft through the Ocean Arrow. Carefully he examined all seams and various pressure points where the strain might have been crucial.

Returning to Bud, he reported, " Everything's okay, but I think we'd better check on the outside too."

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Taking the wheel, he guided the Ocean Arrow to the surface. Then he reversed the blade pitch and gunned the rotor just enough so the craft hung suspended a few feet above the water.

"Chow, how would you like to take over as skipper for a while?" he called to the cook.

The chef brightened immediately. "You mean it, Tom?"

"Sure do. You can hold the seacopter steady while the rest of us inspect the hull for damage."

Chow came forward. He scratched his bald dome and eyed the instrument panel. "Only trouble is, I ain't too sure what all the dials an' doo-jiggers mean."

"I'll show you what to watch and then set up the automatic pilot," Tom said.

A few moments later, with Chow proudly standing watch over the controls, the voyagers flung open the hatches of both cabins. Nets made of nylon cable were lowered over the sides. Then Tom, Bud, Ham, and George climbed out and began swarming over the hull, looking for signs of damage.

In fifteen minutes the inspection was completed. One by one, the others reported to Tom that everything looked shipshape and they had found nothing amiss.

"In that case," Tom decided, "I guess the Ocean Arrow's still air- and seaworthy."

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"What's our next move?" asked Bud. "Shall we make another dive or-or-oo!" Standing spraddle-legged on top of the sea-copter, Bud suddenly lost his balance. Flapping his arms, he teetered wildly for a moment. Then, with a yell, he toppled over backward and plunged headfirst into the ocean.

He reappeared a moment later, shaking water from his eyes.

Tom roared with laughter. "Didn't know you were talking about that kind of a dive, pal!"

Bud took the ribbing good-naturedly. "Okay, so I really pulled a boner that time," he called back. "Now that I'm wet, I think I'll stay in for a swim." Splashing just enough to keep himself afloat, he began unlacing his sneakers with one hand.

"Watch out for sharks!" George warned.

Tom called down the open hatch. "Hey, Chow! Hand me one of those shark-repellent bags out of locker number three."

The bag, containing tablets of sugar and copper salts, were designed to be fastened to a swimmer's leg. The scent is extremely obnoxious to the shark family.

Tom took the bag and tossed it to Bud.

"Thanks, pal!" Bud caught the repellent neatly and heaved his sneakers up in exchange. "Take charge of these, will you? You guys ought to come in too-the water's fine!"

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After fastening the repellent to his leg, Bud swam off through the water in a smooth, easy crawl.

It was a perfect day for an ocean dip. The sun beat down warmly, and the lazy green waves looked cool and inviting. Several fishing boat sails could be seen in the distance and the smoke of a steamer plumed up on the horizon. Sea birds circled overhead with shrill cries.

"By golly, I think I'll go in myself!" George decided.

"Same here," said Ham. "How about you, Tom?"

"In a few minutes. First I want to land the sea-copter on the water."

The two oceanographers stripped down to their shorts, and after strapping on shark repellents, dived overboard.

Tom, meanwhile, had climbed down the hatch into the cabin. "Swell job, Chow!" he told the cook as he took over the controls. "You handled the ship like a veteran pilot."

Beaming at the compliment, Chow watched as the young inventor set the Ocean Arrow down smoothly on the surface of the ocean. Then he said, "Tom, why do you s'pose we can't find that rocket?"

"Beats me, Chow," Tom remarked moodily, saying he might have to invent some new way to detect it.

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"One good thing"-chuckled the Texan-"if we're havin' trouble findin' the rocket, that ornery buzzard Wickliffe must be stymied too!"

"That's true," Tom admitted, feeling encouraged by the thought. "Well, come on. Let's go for a swim and then I'll start working on the problem."

After doffing their outer clothes and arming themselves with shark repellents, the two mounted topside.

As they emerged into the sunshine, Chow shaded his eyes and scanned the water. "Say," he asked in a puzzled voice, "what happened to the rest o' our crowd?"

Tom was already staring around uneasily. Bud, Ham, and George were nowhere in sight! Not even their heads were visible!

"I don't know," he replied slowly. "Surely those bags-"

With a gasp Tom broke off and clutched the cook by the arm. "Chow, look!"

Among the waves, not far from the seacopter, a weird, blackish-gray monster, at least twenty feet broad, had suddenly skimmed into view!

CHAPTER 20

DEVIL OF THE DEEP

"SUFFERIN' SUNFISH!" gulped Chow. "What kind of a critter is that?"

"A manta ray," said Tom tensely. "What most people call a devilfish."

"Sure looks devilish," muttered the cook. "Those two things stickin' out in front are jest like horns."

Tom was fearful that the manta, which he guessed must weigh three thousand pounds, might have lashed at the swimmers with its tail. He knew that the ray could cut them in two with it!

At that moment, unknown to Tom and Chow, their three friends were swimming desperately, deep under water. When they had first sighted the devilfish, it had persisted in staying between them and the seacopter. Now, in order to reach safety, they had been forced to submerge and try to swim under both the creature and the seacopter.

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It was a risky move. If the devilfish should spot their maneuver, it might attack, placing them at its mercy. Their only hope was to hold their breaths long enough to reach the far side of the Ocean Arrow. Already their lungs felt ready to burst as they plowed forward through the water.

Suddenly Tom, watching from above, gave a joyful shout as a head popped up above the surface. It was Bud. A second later Ham and George also bobbed into view.

Pale-faced with relief, the panting swimmers touched the side of the floating seacopter. Tom

DEVIL OF THE DEEP

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and Chow pulled them aboard as the devilfish continued to swim back and forth through the waves.

"Wow! What a way to end a swim!" groaned Bud, still gasping for breath.

"Reckon it's better than windin' up inside that nasty customer," Chow observed.

Suddenly the manta ray leaped high out of the water, then dropped down with a smack that sounded like a demolition blast. The Ocean Arrow rocked crazily.

"That critter's goin' berserk!" Chow cried.

Tom agreed. The devilfish might damage the seacopter! Quick as lightning, Tom jumped down through the hatch, called to the others to follow, and dashed to the controls. In a moment he had

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the rotor blades whirring. The Ocean Arrow rose into the air.

"Whew!" said Chow. "I sure never saw a more loco critter. What ails him?"

Ham laughed. "It's said their fins get full of itching parasites and it drives them crazy. One more minute and this old fellow would have tried slapping the insects off against our hull and damaged it."

Tom decided to cruise around over the ocean a while. "Maybe we can pick up the Piranha's periscope," he told the others. "Keep your eyes open, everybody. Better take your places and turn on the intercom."

As they watched, Tom flicked on the short-wave radio to call his father on the Sky Queen. Mr. Swift answered promptly.

"I have news for you, Tom," he said. "That astronomer's servant Raca has disappeared! Our boys are over in Soure now trying to pick up some more information about him and Taclos."

"Good!" said Tom. "I'm sure Raca and Taclos are in on the Wickliffe deal."

Then the young inventor told what he was doing and in a few minutes signed off.

He flew around the area a while longer looking for the periscope, but none of the group spotted it. Finally Tom said, "Wickliffe probably went back to the island and that's what we'd better do."

"No more looking for the rocket?" asked Ham.

DEVIL OF THE DEEP 173

"Not today. I want to do a little experimenting on the metal detector in the Sky

Queen's lab."

Tom said he believed that if the search beam on the metal detector was raised to a higher frequency, it might turn the trick. "I'll need the lab facilities, though, to make the change."

When they landed back at the ranch, Slim Davis came running to greet them. He looked excited.

"Any luck, skipper?" he asked as they climbed out of the seacopter.

"Not yet," Tom replied. "We'll have to make some improvements in the metal detector. Any news here?"

"Plenty!" said Slim. "Wickliffe is back on the island. I saw his sub put in to port less than an hour ago."

Bud's eyes blazed. "Boy, just lead me to him!"

"Take it easy, Bud," Tom advised. "Starting a fight won't help solve this mystery. He'd deny everything. But go ahead and talk to him. See what you can find out."

"How about you coming along, Tom?"

The young inventor shook his head. "Can't right now-work to do," he said, but added that he would meet them later. "Hank can fly me over in the Ocean Arrow."

It was decided that Slim and George would fly to Soure with Bud in the Skeeter. This was a baby helicopter-one of two midget crafts carried on the hangar deck of the Sky Queen.

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The huge mother plane was berthed a short distance away from the spot where the Ocean Arrow had touched down. Hank Sterling and Arvid Hanson were working under the fuselage.

"Anything wrong, fellows?" asked Tom as he reached them.

"Just cleaning the jets," Hank replied.

"When you're through with that job, how about removing the metal detector from the Ocean Arrow for me? I have some work to do on it."

"Sure thing."

Bud and his two companions rolled out the Skeeter and whirled aloft, with Bud as pilot. Tom, meanwhile, climbed the metal ladder to the second deck of the mammoth plane.

His father was busy working on a high-vacuum experiment in the soundproof, air-conditioned laboratory area amidships. This part of the plane, completely outfitted with all types of scientific equipment, had earned the Sky Queen its nickname of the Flying Lab.

"Well, son, Wickliffe hightailed it back here in a hurry, I'm told," said Mr. Swift.

"Yes. I guess it's still a race between us to find the rocket." Tom went on to explain his idea about adding a higher frequency to the metal detector to locate the missing planet treasure.

His father listened thoughtfully. "You're assuming that the rocket's hull absorbs the search beam from the detector. Is that it?"

DEVIL OF THE DEEP 175

"Right. That's why we get no reflection," said Tom. "However, by using a beam of still higher frequency, I believe we can overcome that difficulty." To prove his point, the young inventor pulled out a pencil and jotted down several equations.

His father nodded. "Checks so far. But to produce a beam of that frequency, the whole detector will have to be rebuilt. That's a job for Swift Enterprises."

"Dad, I believe we can do it right here in the Flying Lab," Tom insisted. "All we'll have to do is redesign three of the circuits like this-" As he spoke, the young inventor sketched out the circuit diagrams he had in mind.

Amazed by the rapid-fire working of his son's mind, Mr. Swift chuckled.

"You've convinced me. Let's get busy."

Hank and Arv came into the lab, carrying the metal detector between them. It was housed in a gray metal box.

"Where do you want it, Tom?" asked Hanson.

"Put it right over there on the electronics bench, will you, fellows?"

The entire laboratory area of the Sky Queen was divided into separate cubicles by shoulder-high partitions. Each cubicle was equipped for some particular type of scientific research.

With a screw driver, Tom quickly removed the housing from the detector.

This exposed the

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chassis, with its rows of gleaming electron and cathode-ray tubes, condensers, and resistors. Soon both the Swifts were busy with soldering irons, wrenches, and screw drivers, rearranging the circuits.

In the meantime, Bud, George, and Slim were approaching Soure. They skimmed over the waterfront, expecting to find the black submarine moored in the harbor. But they could see no sign of the Piranha.

"It's not here!" Bud fumed. "Do you think they could have gone out again after you saw them, Slim?"

"Let's land, anyway," Slim suggested.

"All right," said Bud. "I think it would be a good idea to split up. George and I will see if we can find out anything in town. You fly along the coast. Maybe Wickliffe hid the sub in a cove, under some trees."

They all agreed to this plan and Bud landed the Skeeter in a field. He and George jumped out and Slim moved over to the controls. After agreeing to pick up the others at the same spot in a couple of hours, he took the helicopter up.

Bud and George walked on into Soure. They stopped at several houses which flew small red flags indicating they sold meat or refreshments. In reply to their questions about a tall North American and his two companions, the boys

received only shrugs and stares.

DEVIL OF THE DEEP 177

"Looks as if we're out of luck," George sighed.

Bud snapped his fingers, "Let's go to Taclos's house. If the sub really came back, he should be back at home. And if he's honest, he'll be able to tell us something."

"It's worth a try."

Hiking westward from town, the two friends finally reached the Indian astronomer's house at the edge of a swampy woods. Two white men were just leaving the bungalow.

"What a break!" exclaimed Bud. "Ferd Acton and Kelt Price! Come on, George. This should be interesting!"

As they hurried forward, Acton and Price met them with stony faces.

"All right," said Bud, planting himself squarely in front of the pair. "Now you two are going to do some explaining. Where's Mr. Wickliffe, and what was the big idea of firing that underwater missile at us this morning?"

Acton's thin, bony face twisted into a sneer. "We'll answer no questions, my friend. What's more, if you two came here to quiz Taclos, you can turn right around and clear out. You're not going to see him. Understand?"

Bud's eyes flashed. "Who's going to stop us?"

"We are."

"Try it!"

Like a flash Acton's fist shot out, straight at Bud's jaw!

CHAPTER 21

THE FLEEING FIGURE

SIDE-STEPPING Acton neatly, Bud blocked the blow with his right hand.

"So you want to fight!" Bud cried. "Try this for size!" He shot a hard smash to Acton's chest that sent the man staggering.

Instead of rushing back in, Acton circled his opponent cautiously. Then his left fist flicked out in several lightning jabs. Bud dodged the blows and delivered a barrage of powerhouse rights and lefts.

Remembering what Tom had said about avoiding trouble, George Braun stepped between them. "Come on, you two, break it up!" he ordered.

To his surprise, Kelt Price grabbed him by the shirt and pulled him away. "Let 'em alone!" Price growled. "You're not wanted here either!" Before

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THE FLEEING FIGURE 179

the oceanographer could defend himself, Price stunned him with a punch in the mouth.

George recovered quickly. Blazing with anger, he clipped Price's jaw with a left uppercut and sank his right fist into the pudgy scientist's midriff. Price grunted but stayed on his feet. With a bear-like rush he closed in, absorbing George's

punches and dealing out blows of his own.

Ferd Acton, meanwhile, was still feinting and jabbing. Bud retaliated with a series of hard rights and lefts to the body. Some landed and shook up his opponent while others struck only empty air. Apparently Ferd Acton was a skilled boxer!

For several minutes the melee continued. Gradually Bud and George began to wear down their opponents.

"We'll have 'em talking in a minute!" Bud gloated between punches.

Just then the door of the bungalow flew open. A swarthy, white-clad figure came darting out. Raca!

"So he's back here too!" Bud thought, wondering whether the servant would prove to be an enemy, as Tom had suspected.

The answer came as Kelt Price panted, "Come on, Raca. Give us a hand!"

"Sim, amigo!" Raca leaped at Bud and George, lashing out with vicious punches.

With the odds now three against two, the tide began to turn. Bud and George soon found them-

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selves hard pressed. Whenever they turned to deal with one opponent, the boys caught a painful battering from another. George was bleeding from the nose and mouth, while Bud had a livid bruise under his left eye.

Suddenly an angry voice cried out, "Hold it, all of you! What's going on?"

Bud's heart gave a leap. "Tom!" he cried. "Get in here!"

Tom wasted no time rushing to his friends' aid. His special target became Raca, who ducked around and rabbit-punched Tom from behind. Tom whirled, straightened the fellow with a left to the jaw, then followed with a stiff right to the solar plexus that buckled Raca's knees.

Seeing this, Acton and Price seemed to lose heart. Raca was already glancing for a way to escape.

Suddenly Kelt Price panted, "I'm clearing out!"

The pudgy scientist broke and ran, followed closely by Acton and Raca. The three headed for a grove of andiroba trees, surrounded by shoulder-high wild cotton weeds.

"Come on! Let's go after 'em!" Bud yelled. He and George started off in pursuit.

Tom grabbed their arms and held them back. "Listen! They're only stooges. We want Wickliffe! Since Acton and Price were here, maybe Wickliffe is too."

Bud and George gave up. But George said,

THE FLEEING FIGURE 181

"They may be stooges but those punches were the real thing."

"This mouse under my eye feels as big as a coconut!" Bud complained. The bruise had turned an angry bluish green and was swelling rapidly.

"What happened?" Tom asked.

Bud shrugged. "Acton and Price wouldn't answer any questions and ordered us to leave. When we refused, they went into action."

Tom clenched his jaw. "Well, they can't stop us! I finished my work and decided to fly over in the Ocean Arrow to ask Taclos some questions."

"Where's the copter?" Bud inquired.

"Hank is cruising around in it. Well, let's go!"

Tom strode to the house and knocked on the door. A lengthy silence followed, broken only by the screams and twittering of birds from the edge of the jungle.

The young inventor knocked again. This time, he heard faint sounds from inside the house. Through the slatted blind at the window, his eyes caught a glimmer of movement. Angrily Tom pounded again, but there was no response. Suddenly Bud gave an excited shout. "Hey, Tom! Someone's ducking out the back way!"

The boys dashed toward the back of the bungalow. They were just in time to catch a fleeting glimpse of a man disappearing in the woods. He looked like Wickliffe!

"Do we follow him?" George asked.

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"Yes!" Torn said and started off on a run, with Bud and George at his heels.

They plunged in among the towering trees and dense foliage. Under the torrid late afternoon sun, the marshy woods was steaming with heat. As the boys ran, they stumbled and tripped over vines and creepers, while clouds of stinging insects buzzed and swarmed about their heads.

Exhausted, they finally pulled up short. "Looks as if we've lost him," George panted.

"Spread out and maybe we can pick up his tracks," Tom suggested.

A few moments later Bud gave a yell and the others hurried to join him. He pointed to four sets of footprints.

"Let's go!" Tom urged.

They followed the trail for a quarter of a mile, where it disappeared at the edge of a stream alive with caymans.

Tom pointed to marks in the muddy bank. "Wickliffe and the others must have had canoes hidden here. If we follow the stream, it may lead us to the sub."

"But which way?" said George. "And I'd sure hate to get lost in this place."

He gazed at two huge caymans lolling in the water, only their scaly tails and long snouts protruding above it.

"How to lose a leg in one easy lesson," Bud remarked grimly. "Guess we'll have to give up."

THE FLEEING FIGURE 183

On the way back, George told Tom where Slim Davis would be waiting for

them in the Skeeter. "He may have spotted the Piranha," George added. He led the others toward the field where the helicopter would come down. Ten minutes later they were plodding along the marshy shore near it. The sky had suddenly turned dark and a stiff breeze was blowing in off the sea.

"Wow! Looks like bad weather," Bud remarked.

"Rainy season should be over by now," said Tom. "This may be just a windstorm."

But a cry from George drew their attention seaward. A huge wall of water was sweeping toward them! They must find refuge!

"There's no high ground here!" George exclaimed fearfully. "That wave will swamp us!"

Tom pointed to a line of coconut and assai palms. "We'd better shinny up those trees!"

The boys clambered up the trunks of the thin, towering palms. They had not yet reached the fronds at the top when the enormous wall of water hit the trees. The wind increased to a roaring shriek that whipped them far over at an angle. The tree to which Tom was clinging bent almost double under the blast. As the angry waters swirled and foamed around it, he wondered tensely if the tree would be uprooted and he would be thrown into the raging stream!

CHAPTER 22

A THRILLING SIGNAL

AS TOM WATCHED the pounding water from his perch in the swaying palm tree, he began to worry about Slim Davis and Hank Sterling who were piloting the Skeeter and the Ocean Arrow. Had they taken off in time? What was the tornado wind doing to the craft?

Desperately the three watched the wall of water roll inland. Their muscles ached from the strain of holding onto the tree trunks.

Suddenly Bud shouted, "The copters!"

Tom and George turned their faces in the direction he was looking. The Ocean Arrow and the Skeeter could be seen beating their way forward against the gale. Would they see the stranded trio?

At the risk of losing their grip, the three waved frantically. At first it appeared as if the pilots might fly past without noticing them. But pres-

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A THRILLING SIGNAL 185

ently the two ships turned and swooped toward the palm trees.

"They've sighted us!" cried George.

Slim and Hank grinned and waved encouragingly, though their faces showed worry. The reason soon became evident. Neither craft was equipped with a rescue sling. As long as the waves continued pounding in, it would be dangerous for even the seacopter to make a landing. The tree-clingers saw Hank Sterling pick up his microphone and speak into the radio.

"He's calling the Sky Queen!" Tom exclaimed.

"Another wait!" Bud groaned.

The minutes seemed to drag by. The muscle tension in the boys' arms and legs grew almost unbearable.

But at last the mammoth Flying Lab appeared overhead. Forward thrust was cut, the jet lifters blazed into action, and the big ship settled down to treetop level.

Then began the delicate pickup operation. Twin steel doors slid open at the rear of the hangar deck. A nylon and steel cable ladder was let down toward the tree where Bud was perched. It took several tries before he was able to grab the swinging ladder. Then, swaying perilously, he scrambled up into the plane, to be greeted by Mr. Swift.

As soon as he was safely aboard, the operation was repeated to rescue George and Tom. In the,

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comfortable lounge a few minutes later, as the Sky Queen flew back to the ranch, the boys relaxed over cups of steaming cocoa, prepared by Chow.

"Boy, I feel like a muscle-bound monkey!" Bud confided, stretching his arms and legs.

"Good thing those palm trees were handy or we'd have been drowned monkeys by this time," remarked George.

Exhausted by the day's events, Tom slept soundly that night. When he came into the lounge for a late breakfast the next morning, he was surprised to see Sam Barker, an Enterprises pilot, seated at the table drinking coffee with Mr. Swift.

Tom smiled and shook hands with Sam. "Where did you come from?" he asked.

"Just blew in from Shopton on a cargo jet." The pilot grinned. "Wasn't sure I could land here on the island, but it turned out to be a cinch."

Mr. Swift added, "I radioed Sam to bring down my giant magnet. Also some other equipment, including your Eye-Spy color camera."

"You perfected it?" Tom asked.

"Yes. I thought it might prove useful if and when you locate the rocket."

"Thanks, Dad. That's a swell idea," said Tom, adding, "Before we take off on the search again, I'd like to have another try at talking to Taclos."

As soon as he had eaten, Tom hunted up Hank Sterling and gave orders for the camera to be transferred to the Ocean Arrow.

A THRILLING SIGNAL 187

"You can reinstall the metal detector too," he said. "It's all ready for action."

When this was taken care of, the young inventor went looking for Bud. When he found him, he asked, "Are you game for another call on Taclos?"

"What is there to lose?" Bud quipped. "I might even gain something-like a split lip or another shiner!"

"Okay, then, let's warm up the Skeeter."

A few minutes later the boys were soaring across Marajo in the tiny helicopter. Reaching Soure, they came down a short distance from Taclos's bungalow. The slatted blinds were drawn as usual.

The boys walked up to the house and Tom knocked. To their surprise, the door opened promptly this time. A middle-aged, gray-haired Indian woman appeared.

"Bom dia," she murmured, smiling. Standing aside, she invited them in. The boys were amazed at this show of hospitality. They looked about suspiciously. The living room was plainly but comfortably furnished with rattan furniture. There were stacks of books and scientific journals on shelves and tables, as well as various items of telescopic equipment.

"You are Senhora Taclos?" Tom asked, as the three sat down.

"Sim, Senhor."

"We'd like to see your husband, please."

"I am sorry, Senhor, but he is not here."

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"Can you tell us where to find him?"

The woman replied that he had gone off early that morning with an Americano gentleman named Dr. Week-leef. She added with a mysterious smile that they had located a great treasure and had only returned to Marajo the day before to get certain tools.

The boys looked at each other, speechless. Was this the truth? Was Tom too late?

"I cannot tell you how soon they will be back," she concluded.

Tom and Bud sat in silence a few moments, their thoughts whirling. In any case, they decided, there was nothing more they could do here. They rose to leave. Tom's eyes were suddenly riveted to a pile of books on a corner table. Among them was a black notebook with a frayed back and the initial S. It looked suspiciously like the missing space dictionary! With a startled gasp, Tom crossed the room and snatched it up.

"No, no, Senhor!" cried the Indian woman excitedly. "You must not take! It belong to Dr. Week-leef!"

"It belongs to my father," said Tom firmly. Dr. Wickliffe borrowed the notebook and forgot to give it back. I'll just take it now. The name is Tom Swift." The woman looked frightened and did not object as Tom left the house with it. The boys were

A THRILLING SIGNAL 189

glad to have the valuable code book back, but this did not lift the gloom they felt about the rocket.

"Do you think that heel Wickliffe has really beaten us after all?" Bud asked.

"I hate to think so, Bud. I'm hoping Mrs. Taclos was instructed to tell us that

in case we came back. But we'd better move fast just the same!"

Climbing into the Skeeter, they hurried back to the ranch. Hank Sterling, just emerging from Compartment A of the Ocean Arrow, reported that the metal detector had been installed. "And I've just given the seacopter a complete check. Everything's okay."

"Good work, Hank," said Tom. "Start warming her up right now, will you?"

The boys hurried on board the Sky Queen. Mr. Swift was in the flight compartment with Ham and George. All three were studying hydrographic charts of the Amazon area.

Tom handed the space dictionary to his amazed father and told him the news about Wickliffe finding the "treasure." Mr. Swift looked grave.

"This explains a great deal," he said, tapping the code book. "If Wickliffe stole our dictionary, we can assume that he was at the bottom of most of our troubles back in Shopton. Let's hope we haven't found out the truth too late."

Tom's jaw jutted out in a look of grim determination. "So far as I'm concerned, it won't be too

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late till Wickliffe actually has the rocket salvaged and out of the water. Until then, we're in this race to the finish!"

The elder inventor felt a warm glow of pride, "That's the spirit, son! How soon do you plan to take off?"

"Right now." Tom looked around. "By the Way, where's Chow?"

"In the galley, I guess," said Ham.

Just then a series of groans interrupted his words. Faint and high-pitched, they seemed to come from a person suffering horrible pain.

"Hey! Who's that?" exclaimed Bud.

Hurrying aft, the group clambered up a ladder. Guided by the sounds, they raced toward the galley. Lying on the deck, doubled up in misery, was the fat, bald-headed cook.

Bud, who reached him first, lifted Chow's head. "Holy smoke! He's really bad!" The Texan's face was deathly pale and his lips were a sickly purplish hue.

"Wait a minute!" cried Mr. Swift. Taking out a clean handkerchief, he wiped the cook's mouth. The purple stain came off!

Chow's groans gradually shaped themselves into words. "Oh me! I was jest tryin' out a new dish!" He clutched his stomach as a new spasm of pain swept over him.

Mr. Swift stepped over to the electronic range and held up a nearly empty bowl of purple-colored

A THRILLING SIGNAL 191

mush. He also pointed to a pile of marble-sized fruit pits. "Here's the answer. Chow's eaten too much assai juice and farina flour. It's the favorite dish around the Amazon. Your attack will soon be over, Chow."

"I'm sorry about this," said Tom. "Guess we'll have to do our own cooking this trip, old-timer. But wish us luck, because this may be the showdown!"

Chow made an effort to sit up, but he was too weak and had to lie down again. After making him comfortable in his bunk, the others trooped down to where the Ocean Arrow was warming up.

"Keep in contact with me," Mr. Swift said, as Tom, Bud, Ham, and George climbed aboard. "I'll come pronto with the Sky Queen if you need me."

The lid was sealed behind the voyagers, and Tom took his place at the controls. The seacopter rose into the air and headed seaward. When they reached Cape Maguary, Tom brought the craft gently down on the water, reversed the blade pitch, and eased the wheel forward. Smoothly the seacopter slid beneath the waves.

"Same posts as last time?" asked Bud.

"No, Bud. You keep an eye on the sonar for any signs of Wickliffe's sub. Ham and George can man the metal detector and Damonscope."

Tom steered the Ocean Arrow in a straight line out to sea. Most of the time the detector gave off

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its usual faint background clicking. But about fifty miles from shore, the clicking grew slightly louder. Ham glanced up at Tom with a look of tense interest.

"I think we've picked up something!"

"What's the indicator response?"

"Needle's way up in the metallic frequency range-a lot higher than before."

Tom grinned. "Keep your fingers crossed. Maybe we're going to find that rocket at last!"

The Ocean Arrow continued its seaward run. Tom guided the wheel by the response from the detector. Bit by bit the clicking grew louder. Finally, a hundred and thirty miles from shore there was a louder response from the detector.

"Sounds as if we've hit the jackpot!" said Bud.

Tom nodded. "Time to take 'er down, I think And watch for the Piranha!"

Opening the throttle, he eased forward on the control wheel. The Ocean Arrow plummeted downward. The mariners watched in fascination as the waters faded from blue-green to gray, then darkened into inky blackness.

As they touched the ocean floor, Tom flicked on both powerful searchlights.

Their stabbing glare carved yellow cones through the blackness. There was no sign of the submarine, but what the searchers did see made them gasp with excitement. Far ahead loomed a jutting pointed object!

Was it the missing rocket?

CHAPTER 23

OPERATION SKY HOIST

GRIPPED BY SUSPENSE, Tom and his friends peered across the ocean

floor. George was the first to find his voice. "Tom! Have we found the rocket?" The young inventor's heart was pounding, but he managed to reply calmly, "Could be. Let's get a closer look."

He pulled a lever to extend the tractor gear, then thumbed a button to start the caterpillar treads running. As the Ocean Arrow lurched into motion, he eased off on the main throttle.

"How come you're slowing the rotor?" Bud asked.

"Because it will give us extra buoyancy, so we won't get stuck," Tom explained.

Yard by yard, the seacopter crawled forward through the murk and sediment. As they came

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within closer view of the pointed object, Bud let out a joyful whoop.

"It is the space rocket!"

There was no doubt now-it matched perfectly the object they had photographed over Shopton! Cigar-shaped, it had the same round, cuplike fins running aft from the nose.

"You've done it, Tom, you old deep-water sleuth!" Bud went on, throwing an arm around his pal. "I thought it was hopeless, but you've beat Wickliffe to the punch!"

Ham and George crowded close to add their own congratulations, clapping Tom on the back and wringing his hand. Tom was filled with elation. His thoughts raced ahead to the contents of the rocket and the valuable secrets they might reveal regarding life on another planet. Outwardly, his only response was a quiet smile of satisfaction.

"There's still plenty to do. Let's not forget that hoisting the rocket is going to be a terrific job. And there's always Wickliffe to interfere."

"What's our next move?" Ham asked.

"I'd like to take a look inside the rocket with my Eye-Spy camera," Tom replied, and the young inventor explained briefly how it worked. "It's my new color model."

"Wow! What an eyeful this should be-a full-color view of life on another planet!" Bud exclaimed.

The camera, fastened in one corner of the cabin,

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was released. Tom dollied it up to the window, plugged it into a power outlet, and trained the lens on the rocket. Then he switched on the current, and as the set warmed up, began tuning several knobs and dials.

"Here comes the picture!" Ham murmured.

The image that flickered into focus on the screen was both tantalizing and disappointing. It showed the rocket to contain an outer layer of opaque tubes

which the camera's eye could not penetrate. Between these tubes could be glimpsed a transparent inner section containing some kind of weird reddish objects.

The image lasted only a few seconds. Then there was a popping noise and the picture blacked out as a whiff of smoke issued from the camera.

"Hey, what happened?"

Tom opened a small door at the rear of the camera housing. "The projector bulbs blew out."

Luckily, he had brought a set of replacements, which he quickly installed. But precisely the same thing happened again-the image lasted only a few seconds, then the bulbs exploded again!

"What's causing it?" George asked.

"Must be something unusual about the metallic contents of the rocket," Tom deduced. "It affects the electronic beam, I think, and that in turn overloads the circuits."

"How about those opaque tubes that the camera can't see through?"

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"My guess is they contain the mechanism for propelling and guiding the rocket."

"What interested me," said Ham, "were those reddish things inside. What were they?"

"The million-dollar question!" Tom grinned. Then he sobered. "Anyhow, we'll soon find out."

"What do you mean?" Bud queried.

"I intend to try moving the rocket right now. First I want to find out how heavy it is."

Steering the Ocean Arrow forward, Tom gave the rocket a shove. To his delight it moved. "It must be made of a metal even lighter than magnesium," he commented. "Plenty strong too. Think of all the stress and strain it had to withstand on that trip through space."

Tom now decided to tell his father the news and rose to the surface. Running up the antenna, he tuned in. Mr. Swift's voice came through. "What luck, son? Did you find the rocket?"

"We sure did, Dad! And Wickliffe isn't around!"

"Marvelous!" Mr. Swift exclaimed.

Tom gave his father full details, then asked, "How soon can you get here with the giant magnet?"

"Give us your position and we'll be there in ten minutes!"

Tom did this and asked his father to have a cable ready, long enough to run from their radio to a surface buoy, when the Ocean Arrow was

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deeply submerged, so a conversation could be carried on between the Sky

Queen and the seacopter.

As promised, the Flying Lab reached the sea-copter in ten minutes. At once the old antenna and wire to the radio on the Ocean Arrow were removed. The new cable and antenna were attached, then the seacopter dived.

Reaching the rocket, Tom trained a searchlight on it and told his father to start the salvage operation. Slim Davis maneuvered the Sky Queen into position and the giant magnet was lowered on steel cables. Soon the huge disk dropped into sight of those on the Ocean Arrow.

"You're out of position," Tom radioed Slim. "Move southeast a bit."

By delicate banking and throttle work on both the forward jets and the lifters, Slim was able to shift position slowly. The magnet swung like a pendulum but eventually centered over the rocket.

"Mark!" yelled Tom, and the disk instantly dropped into place. "Okay, you're on target," he reported.

"Here goes, son!" Mr. Swift called. He flicked a switch, shooting electric power into the magnet.

With bated breath the boys waited for the cables to reel in and lift the rocket.

To their disappointment, the magnet pulled away without moving it.

"Stop!" Tom cried, and the operation was repeated with the same result.

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"It won't work, Dad!" Tom reported. "The rocket metal isn't magnetic. She won't hold."

There was a moment's pause, then the elder inventor's voice came back hopefully, "You said the rocket was very light, didn't you, son?"

"Yes, Dad," Tom replied. "Why?"

"In that case, I believe we can use another method to hoist it!"

CHAPTER 24

PRISONERS OF THE SEA

"ANOTHER METHOD for raising the rocket, Dad?" Tom asked, feeling a sense of relief. His father had never failed yet in a crisis.

"Yes. During the past two months I've been working on a tremendously powerful vacuum lifter," replied the older inventor. "I think it might raise the rocket to the surface despite the pressure where you are."

Tom was thrilled by this news, and curious as well. "What's your machine like, Dad?" he queried. "Do you work it by remote control?"

"No." Mr. Swift explained that though powerful, the device was reasonably small and compact and could be attached to the rocket. "My idea is to fasten it to the giant magnet disk," he went on. "Then I can operate it through the same power cables used for the magnet."

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"Swell idea!" Tom cried. "Let's give it a try! How soon can you get your

invention from Enterprises?"

Mr. Swift chuckled. "Tom, I had Sam Barker bring it along. The vacuum lifter is here!"

"Great! I'll wait below and guide it into place."

Mr. Swift turned away from the transmitter and gave an order to Arvid Hanson, who was handling the plane's winch motors. Instantly Hanson threw a lever and began reeling in the magnet cables. Far below, the crew of the Ocean Arrow stood by, watching as the giant disk rose slowly out of sight.

Meanwhile, Slim Davis was holding the Sky Queen in a steady position above the rocket. As soon as the magnet was hauled aboard the mammoth craft, Mr. Swift took charge. Under his direction the vacuum lifter was made ready and installed on the giant disk. Then once again the cables were payed out. It took several minutes for the magnet and suction machine to be lowered through the deep waters.

"Here they come!" yelled Bud, as the two devices gradually appeared in view of the undersea searchlight. "Say, that new gadget ought to be called the Swift Octopus. Look at those segmented cables. They resemble tentacles."

On one side of each cable was a series of openings which would contact the surface of the rocket and adhere tightly as the vacuum pumps began to take hold.

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"Are we on target?" Slim asked by short wave.

"Not quite," Tom replied. "You've veered off to the north a little. Start inching forward and I'll give you a mark."

Under Tom's coaching the pilot jockeyed the magnet and vacuum lifter into position. Then Hanson lowered them onto the rocket.

"Direct hit!" the young inventor reported over the radio.

On board the Sky Queen Mr. Swift pressed a switch. Instantly the suction machine went into action.

"Hoist away!" Tom called over the mike.

Again the cables began to reel in, and a shout of excitement went up from the men in the seacopter.

"She's lifting!" Bud yelled.

Up, up through the dark water rose the rocket, dangling on the end of the cables. Tom sent the Ocean Arrow scooting up after it, keeping the rocket in range of the searchlight at all times. From darkness, through grayness, they ascended into the realm of greenish-blue water.

Suddenly a worried cry from Mr. Swift came over the loud-speaker, "We're losing suction!" On board the plane, he was watching the vacuum gauge with a tense frown. The needle was flickering downward!

Frenzied activity erupted on the Flying Lab as Mr. Swift barked orders. With everyone aboard helping, two more steel hoisting cables were made

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ready. These were let down in loops. Then, by careful maneuvering, the loops were passed around the nose and tail of the rocket.

Almost at once a new crisis developed. A loud fizzing, accompanied by showers of white-hot sparks and bubbles of hissing steam, arose at the two places where the cables gripped the missile.

Tom grabbed up the mike. "Dad! The cables are burning clear through the rocket!" he shouted. "The metals have set up a reaction!"

There was no time to remedy the situation. Before the startled eyes of the mariners, the rocket hull came apart at nose and tail! Out slid the transparent center section which they had glimpsed in such tantalizing fashion through the Eye-Spy camera.

For a fleeting moment the entire contents of this section were bared to view.

A weird array of queer-shaped, reddish plants was revealed. Then the huge transparent capsule plummeted downward toward the ocean bottom!

"We've lost it!" yelled Bud frantically. "Our prize is gone!"

"Not yet!" Tom said determinedly.

Shoving the control wheel forward, he yanked the throttle wide open and sent the seacopter into a steep dive. The planet garden was lost to sight now in the darkness below. In a desperate effort to find it, Tom swiveled the searchlights about, their yellow glare stabbing through the murky water.

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"There it is!" Ham cried.

Keeping the rocket section in view, they continued their dizzy descent.

Moments later the Ocean Arrow had almost reached the ocean floor. With a gasp of horror, George Braun grabbed Tom by the arm and pointed through the cabin window.

"There's the Piranha!" he exclaimed.

The black submarine lay wallowing in the ooze. It appeared to be trapped and helpless, unable to pull free. The rocket garden too was already sinking into the muck. At that very instant the Ocean Arrow touched bottom!

The terrifying realization flashed through Tom's mind that he had gone too deep. "We'll be trapped ourselves!" he thought.

Sweat poured from the young inventor as his hands flew over the controls.

Cutting the rotor, he reversed the blades, then gunned the throttle again and hauled back on the wheel.

The seacopter quivered from stem to stern as it fought to pull itself upward.

But it was no use! The voyagers could feel the grip of an invisible force on the Ocean Arrow. It, too, was slowly sinking downward into the slimy sediment of the ocean bottom!

Fear-stricken, the four mariners stared at one another. They were now

prisoners of the sea, powerless to move!

CHAPTER 25

PLANET LIFE

WITH AN EFFORT, Tom shook off the panic that was clouding his brain.

"We aren't trapped yet!" he thought. "If Dad's vacuum lifters could pull up the rocket, there's a chance it can save us."

Snatching up the mike, he radioed word of their plight to the Sky Queen, asking if the suction machine could be repaired in a hurry.

"I've already done that with new fuses," his father replied hastily. "Stand by and don't worry. We'll soon have you out!"

The occupants of the seacopter waited anxiously. Finally the magnet and vacuum lifters came dangling into view.

"Off target!" Tom short-waved to Slim Davis. "Come east about five yards!"

Under the young inventor's urgent directions, the suction device

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was maneuvered into position on the nose of the Ocean Arrow. "Okay. Now clamp on!" In a few moments he added, "Hoist away!"

Hearts pounded and throats became tense and dry as the trapped group awaited results. Gradually they felt the nose of the seacopter tilting upward.

"We're moving!" Bud muttered.

A moment later the entire hull began to rise. With a sudden, mighty jerk it pulled loose from the muck!

"We're free, Dad! Unclamp!" Tom reported jubilantly. He hastily gunned the rotor to hold the craft in the depths. His next thought was for the safety of the men on board the Piranha.

"For two cents we ought to leave 'em stuck in the mud!" Bud commented sourly.

"You couldn't do that any more than I could," said Tom. "We can settle our accounts with them after they're safe."

Tom spoke to his father, who agreed at once to rescue the men. Slim Davis jockeyed the suction device onto the submarine's hull.

Because the Piranha was larger and heavier and mired more deeply, the struggle to free her was far more difficult. As the hoisting cables strained upward, Tom tried to make contact with the trapped crew by sonar. He finally succeeded and learned by international code that the men in it were alive and unharmed.

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"You must rescue us!" pleaded Wickliffe.

"We're trying to save you right now," Tom replied. He explained the Sky Queen's salvage technique, and the use of the vacuum lifter. "If and when you get loose," he added, "I want you to wait for us on the surface."

"We will! I give you my word!" promised Wickliffe.

"Think his word is worth anything?" Bud asked.

Tom nodded slowly. "Yes, I think he means what he says. A bad scare often brings people to their senses."

For several minutes the Sky Queen continued to pour out power while the cables hauled and strained to the limit of their tensile strength. At last, with a terrific lurch, the Piranha burst out of the ooze. Since she had already blown her ballast tanks, the sub instantly started toward the surface.

Tom grinned as he watched the craft disappear out of range of the searchlight. "Wickliffe won't be able to get away even if he wants to. The Piranha wrecked her screws trying to churn out of the muck!"

One job remained for him to attend to-the salvaging of the transparent rocket section containing the garden. Tom guided the vacuum lifters into place. Then the cables reeled in. Slowly the capsule was raised to the surface, then hoisted up to the Sky Queen's hangar.

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When the Ocean Arrow itself broke surface, Tom and his friends saw the Piranha floating helplessly among the waves.

"What happens now?" George asked.

"Now," said Tom firmly, "Wickliffe and his pals are going to do some talking."

Turning back to the radio, he gave orders for the Sky Queen to lower a ladder, first to the enemy submarine, then to the seacopter. A few moments later the Piranha's hatch cover opened. One by one the crew emerged, followed by Wickliffe, Acton, Price, and an Indian who Tom assumed was Taclos. All of them clambered up into the rescue plane.

By the time Tom and his companions boarded the Flying Lab, Wickliffe's party had been safely herded into a small lounge.

At sight of Tom, Wickliffe mumbled nervously, "You and your father have every reason to hate me -I realize that. But at least let me thank you for saving our lives. Frankly, we had given up hope!"

The thin, bespectacled scientist was a picture of dejection, with slumping shoulders and a dazed look in his eyes. Ferd Acton and Kelt Price were huddled close beside him, sullen and fearful. Taclos, the native astronomer, stood somewhat apart from the rest of the crew.

"You have a great deal of explaining to do," Mr. Swift told Wickliffe sternly.

"You better begin at once!"

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"I'll tell you everything," agreed the scientist in a dull voice. "The whole thing began that day when I saw the space dictionary on your desk. As you probably know by now, I yielded to temptation and stole it."

"But why?" Mr. Swift frowned in amazement.

Wickliffe gave an unhappy shrug. "A mixture of jealousy and ambition, I suppose. I, too, hoped to communicate with space beings. Then when I read that

message in the back of the book-the one about a rocket being sent with specimens from another planet-I saw the chance of a lifetime to become a great scientific hero."

"By recovering the rocket yourself?"

"Exactly. An ex-employee of mine, named Smirt, now works in your communications department. I bribed him to give me the oscilloscope frequency at which you send your space messages. Then I jammed out all of your signals and sent a message of my own."

"What was the wording of your message?" put in Tom.

Wickliffe thought for a moment, then replied, " 'Continue course to 03 hours 18 minutes 00 seconds West longitude and 00 hours 04 minutes 00 seconds North latitude. Continue course.' "

Tom snapped his fingers. "So that's it! We only picked up the last two words. But why did you choose this particular location?"

The scientist explained that the continental

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shelf beyond the Amazon, being wide and fairly shallow, seemed like a good location. The water would not only keep the rocket from crashing to destruction or burning up, but would also hide it from public view until he himself could salvage it.

"I suppose you also made those calls to Mayor Clyde?" inquired the elder Swift.

Wickliffe nodded shamefacedly. "It was a low, petty trick, I admit, but you see I was still afraid you might win out. It seemed as though the only way to beat you was to try making trouble for you and discrediting you in the eyes of the public."

"That excuse won't go for the attack you made on our seacopter!" said Tom grimly.

"Believe me, I wasn't trying to kill you!" implored Wickliffe. "All I intended to do was scare you off."

A short silence followed as Tom and his father looked at each other, exchanging unspoken thoughts. There seemed to be no doubt but that Wickliffe was telling the truth. Badly shaken by the experience of being trapped on the ocean bottom, and now completely defeated by the Swifts, he looked like a man who had learned a bitter lesson.

"As a scientist, you've done fine work," said Mr. Swift finally. "It has brought you money and success. But don't forget that science also involves a high responsibility to mankind. There can be no excuse for a man of your rank stooping to such

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cheap and underhanded schemes as you have done!"

"Everything you've said is true," Wickliffe mumbled in abject tones. "If only you won't turn us over to the authorities, I promise that nothing of the sort will

happen again!"

Again Tom and his father exchanged glances, nodding affirmatively. They would agree to drop the matter. Both felt that perhaps by changing the course of the rocket, Wickliffe had possibly saved Shopton from serious damage.

The scientist and his two assistants burst out in a flood of relieved thanks which Mr. Swift cut short coldly. Wickliffe then begged for a chance to see the rocket section with its examples of planet life.

"Very well," said Mr. Swift. "I think we're all eager to get a closer look at those specimens."

Trooping aft to the hangar, they gathered around the long transparent capsule. A fantastic and breath-taking spectacle met their eyes.

At least twenty different types of plants were enclosed. All glistened with a red, metallic sheen. Anchored like stalagmites, they grew directly out of stones and rocks. In form they resembled honeycombed tulips or huge upside-down mushrooms without stems. Several "flowers" were also included, with long spikes from which an oily liquid could be seen oozing.

Among these plants, a number of queer-looking

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insects, somewhat like enormous scarab beetles, were creeping about. One crawled up a flower spike and began sipping the oozing liquid.

The watchers stared in awe, too fascinated to speak. Finally Mr. Swift put an arm around Tom and murmured thoughtfully:

"The first forms of life from another planet ever seen by human eyes! You realize, son, that this is an historic moment in science?"

Tom nodded. "Yes, Dad! I can't wait to get this space garden back to our lab in Enterprises. What a thrill it will be, studying these specimens in detail!"

Suddenly Ham cried out, "Look! Something's happening inside there!"

Before the horrified gaze of the watchers, a number of the plants began to shrivel and wither. At the same time several of the insects stopped crawling around and rolled slowly over on their backs.

"They're dying!" exclaimed George.

Immediately Tom dashed from the hangar and raced up the stairway to the laboratory area on the second deck. When he returned a few moments later, the young inventor was carrying some tools in one hand and holding a small steaming whitish pellet by a pair of tongs in the other.

"Dry ice," Tom explained.

Quickly he drilled a hole in the transparent enclosure, inserted the pellet, and sealed the hole up

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again. Almost instantly the plants and insects began to revive.

"Wow! What a genius!" exclaimed Bud, slapping his pal on the back. "But what gave you the idea?"

"Well, I believe the climate on the planet where these plants and insects came from is much colder than ours and probably its atmosphere is made up mostly of carbon dioxide," Tom replied. "So I fed it to them."

Plans were made to tow the disabled submarine back to port. Wickliffe and his crew would be left on Marajo to arrange for its repair. Tom's group, meanwhile, would take off for Shopton in the Ocean Arrow,

"But I'm coming back to recover the outer hull of the rocket," added Tom thoughtfully. "I'd like to analyze the metal it's made of. My hunch is it's partly montmorillonite."

"Wow!" Bud cried. "Break that word down!"

"Later." Tom laughed.

Both Ham and George begged him to investigate further the strange undersea city of gold on the Atlantic Ridge.

"We'll definitely get around to that," Tom promised. "But first Dad and I have to study these samples of life from the planet, so we can tell our space friends how to survive a trip to earth."

Tom wondered whether his next adventure would take him over the land, under the sea, or in the air. He wondered, too, what new invention he might have to develop, in order to accomplish the mission. It turned out to be the terrasphere, as related in the next volume, Tom Swift in the Caves of Nuclear Fire.

His thoughts were interrupted by a guffaw and a Texas drawl, saying, "Brand my rootin'-tootin' radarscope, what's goin' on here?"

Pale and puffy-eyed from a sound sleep but definitely recovered from his illness, Chow Winkler ambled into the compartment on shaky legs. The others roared with laughter as he stared in unbelieving horror at the reddish space garden and strange insects. "Now what's that? Am I having another nightmare?" Grinning with affection, Tom threw an arm around the fat chuck-wagon cook's shoulders.

"Tell you what, Chow," he replied. "You wrestle us up a rootin'-tootin' meal and I'll tell you all about it!"

THE END

TOM SWIFT AND HIS DIVING SEACOPTER

By VICTOR APPIE.TON II

No. 7 in the Tom Swift Jr. series.